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1. What is the purpose of the study?
 The purpose of the study is to investigate the effect of a new teaching method on student performance in mathematics.

2. What are the research questions?
 The research questions are:
 - How does the new teaching method affect student performance?
 - Are there any differences in student performance between the new method and the traditional method?

3. What are the hypotheses?
 The hypotheses are:
 - H1: The new teaching method will result in higher student performance than the traditional method.
 - H2: There will be a significant difference in student performance between the two groups.

4. What are the variables?
 The independent variable is the teaching method (new vs. traditional).
 The dependent variable is student performance (measured by test scores).

5. What are the limitations of the study?
 The limitations of the study are:
 - The study was conducted in a single classroom, which may limit the generalizability of the findings.
 - The study did not control for other factors that may affect student performance, such as prior knowledge and motivation.

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Figure 1: Schematic representation of the experimental design. The diagram shows a sequence of events: a fixation cross (0.5s), a stimulus (0.5s), a response (0.5s), and a feedback (0.5s). The stimulus is a 3x3 grid of colored squares. The response is a 3x3 grid of colored squares. The feedback is a 3x3 grid of colored squares. The sequence is repeated for 10 trials.

1. **Introduction**
 2. **Background**
 3. **Methodology**
 4. **Results**
 5. **Conclusion**
 6. **References**

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BEYOND THE SUNSET

A BOOK OF EXPLORERS

By

ELSPETH J. BOOG-WATSON

and

J. ISABEL CARRUTHERS

With an Introduction by

F. S. SMYTHE

*'Tis not too late to seek a newer world.
Push off, and sitting well in order smite
The sounding furrows ; for my purpose holds
To sail beyond the sunset.*

OXFORD UNIVERSITY PRESS
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"	NOVEMBER 1937
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"	OCTOBER 1938
"	JULY 1940
"	JANUARY 1942
"	JANUARY 1944
"	APRIL 1945

PREFACE

THE complete Story of Exploration is the material for many hundreds of volumes. This book is an Introduction to the story, making its start with Marco Polo's epic journey in the thirteenth century, and carrying the tale up to the Flight over Everest.

Between these two wonderful achievements are a score and more no less wonderful—deeds of almost unbelievable adventure, of courage and endurance; dangers flouted, hardships magnificently borne. The authors have tried to tell these simply, in such a way as to allow them to tell themselves, as all great stories should, that they may stir boys and girls to a longing to know more, and a determination one day to read fuller accounts of the stories here told, and those others that only lack of space has barred out.

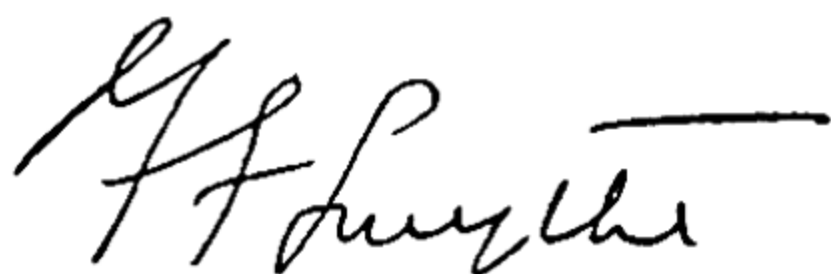
INTRODUCTION

M^{AN} is naturally an inquirer, not only into matters concerning his immediate present, but into his material and spiritual destiny. It is this spirit of inquiry—this desire to advance his knowledge—that in every phase of his existence has raised him above the level of the beasts.

From his beginnings it was natural for him to extend his knowledge of the terrain on which he lived. Stage by stage he progressed. He discovered that what had previously seemed incalculable was calculable. Practically and theoretically he set his intellect to combat the manifold problems of physical creation. He found that the earth was spherical; he weighed it, analysed it, and set himself to probe and investigate it.

Exploration is one manifestation of this spirit of inquiry, this desire to adventure into the realm of the incalculable and unknown. Perhaps it is the most practical and exacting form of inquiry, involving as it does an acceptance of hardship and danger, and perhaps too it is the most spiritual, for no thinking man may set himself to investigate the secrets of the universe without being conscious of its glories and the divine power that lies behind its inception. It is for this last reason that exploration continues in regions of the earth that are incapable of commercial development. The materialistic side of exploration is replaced by the spiritual side—a ceaseless striving towards some ideal hidden deep in men's consciousness. That is why men now attempt the ascent of Mount Everest. Useless the adventure may be from a materialistic standpoint, but

of inestimable value from a spiritual standpoint, for in its very uselessness lies the supreme value of such an adventure—it is one where man is not concerned with material gain but with the spiritual development in which lies the strength and beauty of his destiny.

A handwritten signature in cursive script, appearing to read "H. F. Luntz", with a horizontal line extending from the end of the signature.

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'The uttermost peak of unfulfilled desire'

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CHAPTER I

MERCHANTS AND MISSIONARIES



TRAVELLING is comfortable to-day and speedy. Trains leave London at ten o'clock at night and arrive in Edinburgh by breakfast-time. Great liners—'floating hotels' with swimming-baths and ball-rooms—cross the Atlantic in less than a week. Men have flown

from London to Australia in two days.

It was very different seven hundred years ago. To reach Edinburgh from London took about a fortnight, for not only were there no aeroplanes, trains, or cars, but there were hardly any roads. In fine weather the dust and heat made travelling uncomfortable; in wet weather the flooded streams and mud made it impossible. The traveller was in danger also from wild animals and from robbers.

Travelling by sea in those days meant sailing in a small ship whose deck was washed by the waves, while down below it was dark and airless.

'What pen can well report the plight
Of those that travel on the seas?'

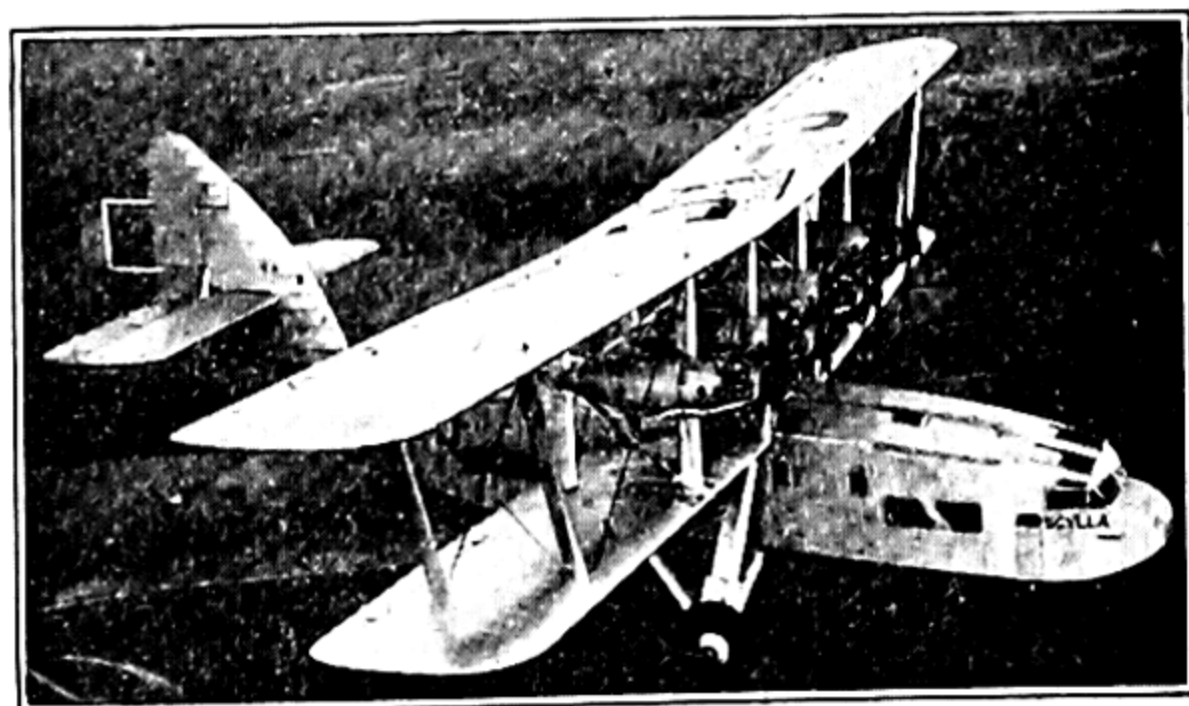
asked a poet of those times who must have suffered from all the discomforts of a sea voyage.

Many people therefore did not travel at all but stayed at home, never moving more than twenty miles from where they were born. Those who did travel had a very good reason for doing so. Some went for gain, in the hope of finding gold, or in order that they might trade. Others were inspired by religion—Crusaders who fought for the Holy Land, pilgrims who went from shrine to shrine, and missionaries who preached in heathen lands. There were some, too, who desired adventure and

‘To follow knowledge like a sinking star
Beyond the utmost bound of human thought.’

There was opportunity for those seekers. The thirteenth-century Englishman knew something of his own country; something, perhaps, of Western Europe; he might even have heard of India, a rich land far to the East, whence came the spices that flavoured his food. Of other lands he knew nothing.

Continent by continent, ocean by ocean, men have laid bare the unknown, and to-day, in our own lifetime, the last secrets are being unveiled.





CHAPTER II

THE ROAD TO THE EAST, I

MARCO POLO

‘Sweet to ride forth at evening from the wells,
When shadows pass gigantic on the sand,
And softly through the silence beat the bells
Along the Golden Road to Samarkand.’

NEARLY seven hundred years ago, there set sail from the city of Venice two brothers called Nicolo and Maffeo Polo. They were merchants, and they hoped to sell their goods for so much money that they would return to their native city wealthy and honoured. But day after day passed, week after week, and the brothers did not return.

Nicolo had left behind him a baby son called Marco, and as the little boy grew older he began to wonder where his father could be. Was he alive or dead? Had he reached some far-off city of countless riches such as the Venetian sailors told of? It was only natural that Marco Polo should talk to the seamen and hope to learn from them about his father.

Besides, it was difficult for any boy brought up in Venice



VENICE—CITY OF WATERWAYS

An old engraving that might easily be taken for an aerial photograph of to-day.

not to be interested in sailing and trade. For the city was built on islands, and between these islands ran the water of the blue Mediterranean. On either side of these canal-streets stood palaces, churches, and houses with gaily coloured roofs. The docks were full of ships unloading great bales of rich silks, and cargoes of spices which, the sailors said, had been carried for thousands of miles upon the backs of camels before being put on board the ships. It was small wonder if young Marco Polo longed to travel to these shining cities of the East whose very names are full of magic—Constantinople, Laiassus, Bokhara, Samarkand.

Many years passed by, and no news of his father or uncle had reached Marco Polo, when one day a ship put into the harbour of Venice, and from it there stepped two weather-

beaten strangers—at least, they appeared to be strangers, so long was it since they had set foot in their native city. For these were Nicolo and Maffeo Polo, and it was a strange story they had to tell.

They had travelled, they said, through the mountains of Asia Minor, and having completed their business were about to return when they learned that the road by which they had come was blocked by a tribe of savage Tartars. So they decided to go on and try to find their way home by some other route. At length they reached the city of Bokhara. There they stayed for three years, unable to come home or to travel farther, and there they met a great noble from whom they learned that if they went on they would come to the court of the Emperor, Kublai Khan, who would treat them well and send them home in safety. Another year of travelling brought them to the land of the Emperor, the land of Cathay which we now call China.

Kublai Khan was not himself a Christian; but he was interested in what they told him of Christ's teaching, and bade them go back and fetch one hundred missionaries to preach to his people, and also some oil from the holy lamp which was kept burning upon the tomb of Christ in Jerusalem. To help them on their journey he gave to them a golden tablet on which was engraved his command that all his subjects should give them food and protection.

When Marco Polo heard the story of these adventures he asked his father and uncle to take him back with them to the court of Kublai Khan, and to this they agreed; but first they had to get the holy oil and look for the hundred missionaries. The first of these was easy enough, but the second gave them great difficulty; for the road was long and dangerous, and in the end only two preachers could



MARCO POLO'S TRAVELS

The start from Venice. From a MS. illustration.

be persuaded to set out with Nicolo, Maffeo, and Marco Polo for Cathay.

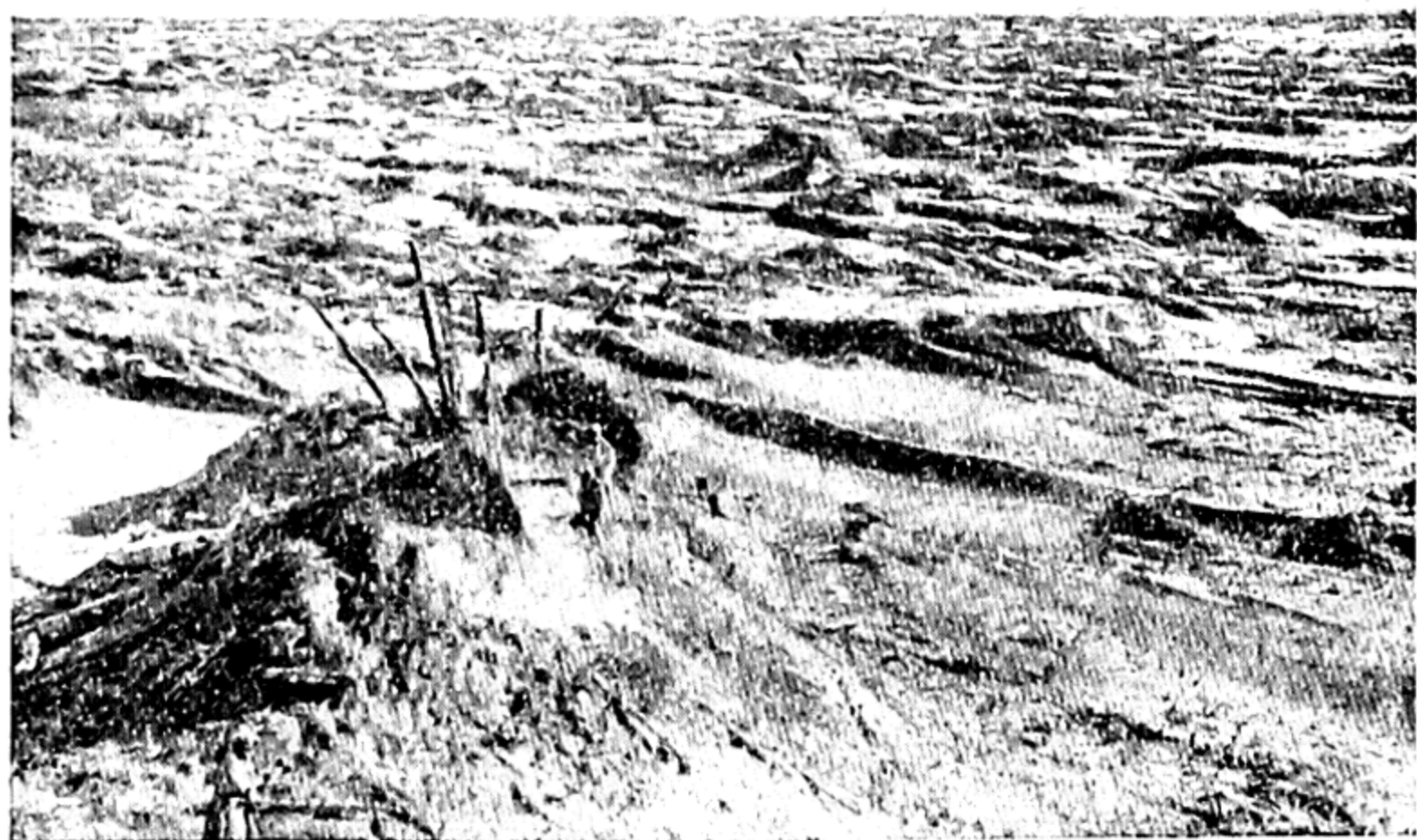
In the year 1271 the five adventurers set sail from Venice in a ship whose high forecastle and brightly coloured sails would seem to us gay and attractive—but we should

find the inside of the ship less pleasant. The cabins were small, dark, and ill-smelling, the food was bad, and the ship tossed terribly when the wind blew. But at last the travellers reached Laiassus on the shore of the Mediterranean, and from there they set off overland to reach the court of the great Emperor.

The road was rough, and there were stories of robbers and even of savage armies. The two missionaries, thoroughly frightened, turned back, but Nicolo, with his son and his brother, went on. The heavy snows, the flooding of the rivers, the terrible cold, kept them from travelling during the winter, and it took them three years to come near the Court of the Emperor. At last they learned that they were within three months' journey of him, but before they could reach him they had to endure the greatest danger of all, for now they had reached the terrible Gobi Desert which lies to the west of the great wall of China.

They had been warned of the perils of this vast wilderness, of the sandy plains and barren mountains, of the lack of food and the risk of dying of thirst, of the horrible voices and evil spirits that were said to lure men to their death in this trackless, waterless expanse. But they went forward undaunted, and, by careful preparation and management, succeeded in marching from well to well, seeing nothing of the evil spirits, till at long last they reached the land of Cathay.

Weary but triumphant the three Venetians came to the Court of the Emperor and were honourably received by him. Nicolo and Maffeo told the story of their journeys, and gave to the Emperor the holy oil. Then Kublai Khan asked who the young man was, and Nicolo answered, 'This is your servant, and my son.' 'He is welcome,' replied the Emperor, 'and it pleases me much.'



THE GOBI DESERT

A sea of sand, blown into waves, stretching drearily, seemingly endless, as far as one can see.

Kublai Khan took a fancy to the intelligent young Venetian, and employed him to travel through his dominions and report upon the state of the different provinces and cities. Marco Polo already knew the Tartar language, as did his father and uncle; now he set himself to learn the other languages of China, and succeeded so well that he could note for the Emperor all that was of interest in the different places which he visited. On his side Marco Polo had a great admiration for Kublai Khan, who, he said, was 'styled Lord of Lords, and is of the middle stature, that is, neither tall nor short; his complexion is fair, his eyes are black and handsome, his nose is well-shaped and prominent.'

Kublai Khan was indeed a great ruler, and Marco Polo was impressed by the splendour of his court and of his

cities. Of his capital, Peking, he tells us that it was surrounded by a wall, twenty-four miles long, in which there were twelve gates, and each gate was defended by one thousand men. The streets were so straight that a man standing on the wall above one of the gates and looking in front of him could see the gate opposite him on the other side of the city, six miles away.

Kublai Khan was renowned for the magnificence of his feasts. The Emperor sat facing south, raised so high that even his sons sat with their heads upon a level with his feet. Those who waited on him had to cover their noses and mouths with embroidered silk lest they should so much as breathe upon his food, and when he drank all knelt while musicians played. At certain feasts presents were given to him, of, for instance, gold, silver, jewels, or horses; 'and now,' says Marco Polo, 'I shall relate a wonderful thing: a large lion is led into his presence, which, as soon as it sees him, drops down and makes a sign of deep humility, owning him its lord, and moving about without any chain.'

After seventeen years of service to the Emperor, Marco Polo wished to return with his father and uncle to their own city of Venice. The Emperor did not wish to let them go; but it happened, luckily for Marco Polo, that a Princess of Cathay was to be married to a Prince of Persia. The Emperor wanted to send the little princess, Kogatin, by sea, for the dangers of the land journey from China to Persia were great. Marco Polo was familiar with the sea-route, and his father and uncle knew something of ships. So Kublai Khan decided to send the little princess in their charge to Persia, and to allow them to go home.

For a year and a half Kublai Khan's fleet sailed by the

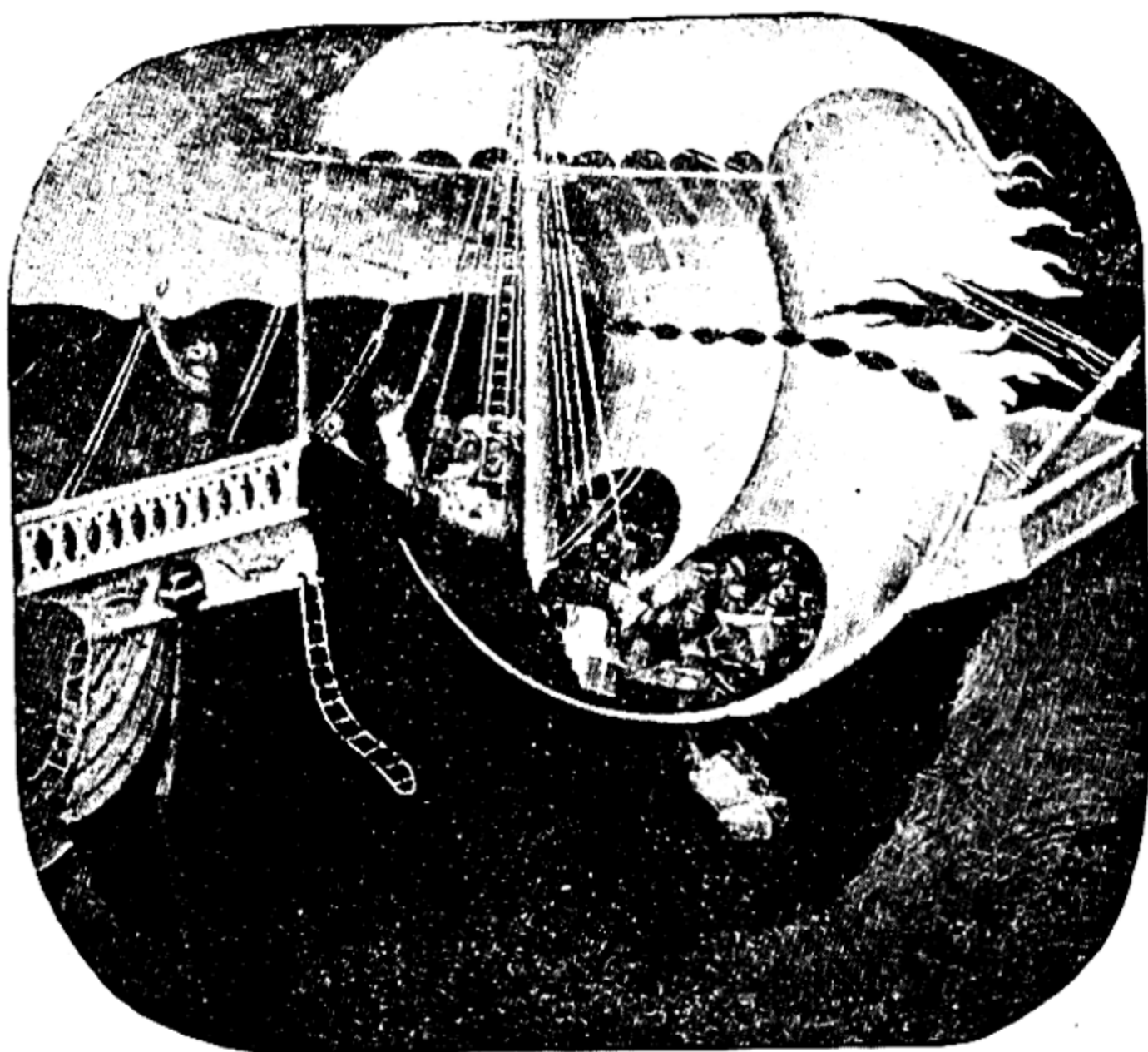
coasts of Malay and India till it reached Persia. But when Marco Polo landed, he was met by sad and troubling news. The prince whom Princess Kogatin was to have married was dead. The Venetians wondered what to do. They could not take the princess to Venice with them; they could not send her back friendless and unaccompanied to China; they could not leave her lonely in a strange land. But the Persians solved the problem: the prince, they said, had left a son—why should not the princess marry him? So it was all happily arranged. Marco Polo escorted the princess to the Court of the Persian prince, and then he, Maffeo, and Nicolo set off for Venice.

They left the sea now, and journeyed overland till they saw, once more, the shores of their own blue Mediterranean. Taking ship they reached Venice after an absence of over twenty years. But, the story goes, they were so changed that no one could recognize them, or believe them in truth to be Nicolo, Maffeo, and Marco Polo. So they held a great feast and to it invited their relations. One course followed another, and as each course was served the three travellers left the room, returning each time in different and more gorgeous robes, till at the serving of the last course they entered in their discoloured travelling clothes. Then, before their astonished guests, they ripped up the seams of their stained garments, and from the linings there fell on the floor a cascade of jewels. When the guests saw this wealth they changed their minds, and admitted that, after all, these strangers were the Polos.

A year after the travellers' return, Venice went to war with the neighbouring city of Genoa, and among those who fought was Marco Polo. He was captured and kept for three years in prison, where he spent his time in writing

an account of his travels. After his release he came home to Venice, where he lived quietly for the rest of his life, telling his traveller's tales of how

'In Xanadu did Kublai Khan
A stately pleasure-dome decree:
Where Alph, the sacred river, ran
Through caverns measureless to man
Down to a sunless sea.'



EARLY TRAVELLERS

A storm is raging, and some of the cargo
is being thrown overboard to
lighten the ship.

CHAPTER III

THE ROAD TO THE EAST, 2

‘Where the gorgeous East with richest hand
Showers on her kings barbaric pearl and gold.’

§ 1. *PRINCE HENRY THE NAVIGATOR*

ON the shores of the Atlantic, in the sunny land of Portugal, there lived five brothers. Their father was King of Portugal, their mother was an English princess. The boys were trained in all the exercises necessary to princes in those days—riding, tilting, swordsmanship—and they learned also to read and write.

The home of the five princes was not far from the sea, and from the palace windows they could watch the ships coming into harbour from distant lands. The third of the brothers, Prince Henry, was specially interested in these ships, and in the strange lands to which they had voyaged. One sailor had been to the cold north with a cargo of fruits and wine for the sunless land of England. Another had sailed to the south and to the east, enduring perils and hardships from wind and storm on the rocky coasts of the Mediterranean. More exciting yet were the tales told of the pirates who lived on the northern coasts of Africa. These pirates robbed and sank ships, and murdered the crews or carried them off to torture and slavery. Prince Henry and his brothers shuddered at such stories.

When Prince Henry was a young man, his father, the King, made up his mind to punish these pirates. His sons begged him to let them go too, and Prince Henry fitted out several ships to take part in the expedition.

Everything was ready when a sudden illness of the



PRINCE HENRY THE NAVIGATOR

Queen brought her husband and sons to her bedside. She was dying, but she did not think of herself, only of the work that the King and Princes had to do. 'What is the wind that blows so strongly against the walls?' she asked anxiously. 'It blows from the north,' was the answer. 'It is the right wind for your voyage,' murmured the Queen, and she fell back, dead.

So bravely did Prince Henry fight against the pirates that his father resolved to make him a knight. But as this was a great honour and neither of the Prince's elder brothers had yet received it, Prince Henry begged his father not to make him a knight before the others, who had fought, he said, as bravely as himself. The King, therefore, knighted his three eldest sons on the same day.

After Prince Henry came back from fighting the pirates he became more interested than ever in ships and in the sea. Sailing through the Straits of Gibraltar, he had seen the west coast of Africa disappear to the south. 'Surely,' he said to himself, 'if men sail far enough to the south, that coast will bend east, and, following it, they will reach India.'

Prince Henry would have liked himself to try to find a sea-route to India; but before an expedition could set sail great preparations were required, just as nowadays, before any one tries to fly the Atlantic or climb Mount Everest, months must be spent in getting ready.

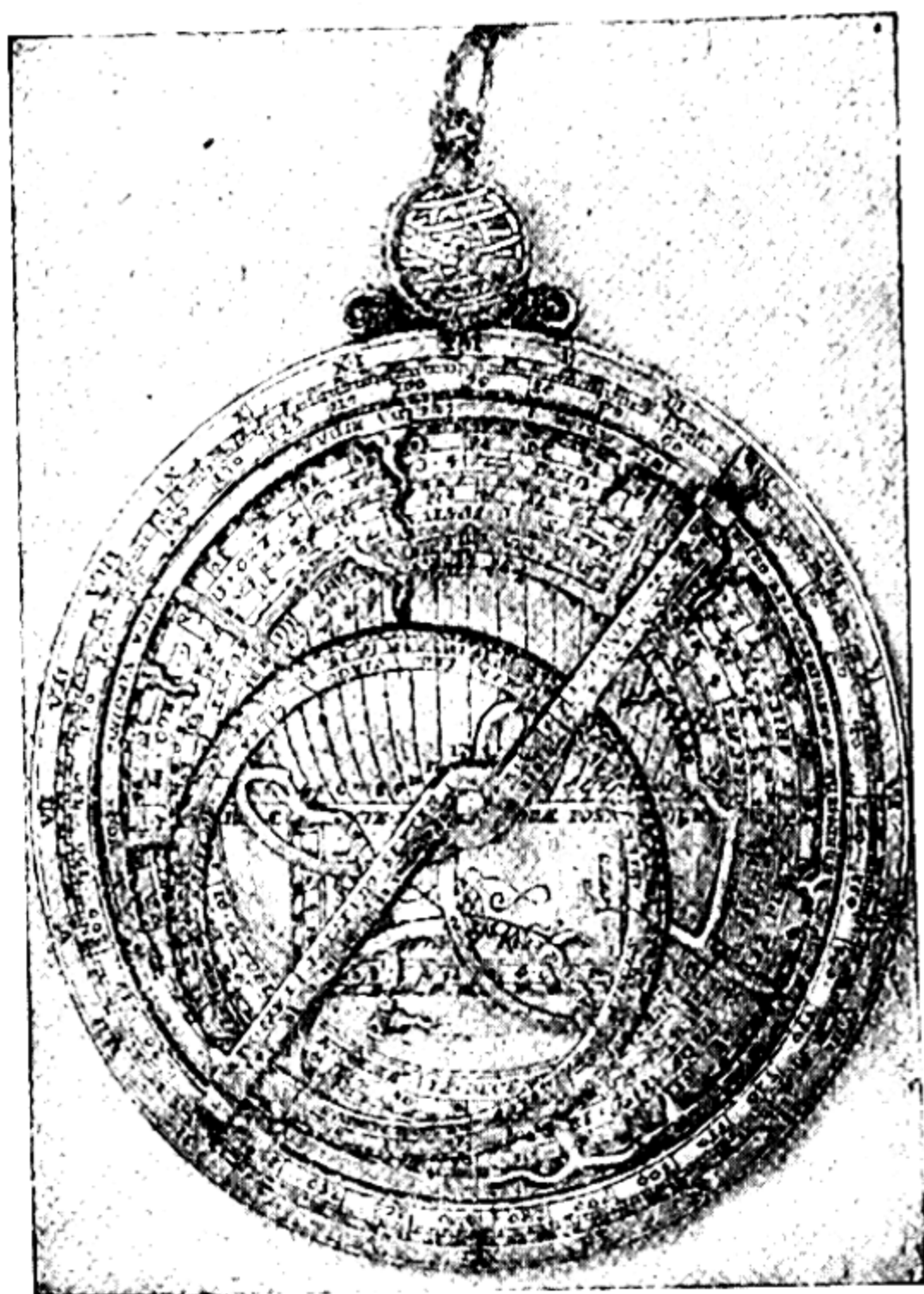
Prince Henry had to buy or build ships, and supply them with all the necessary sails and ropes and stores; all of which cost him a great deal of money. He realized, too, that it was no use having ships and stores if the sailors did not know how to make use of them. His seamen must be both brave and skilful. He gathered men who had had experience of the sea, and brought them to live near Cape St. Vincent, a barren point of land that runs out into the Atlantic. There he built a palace and an 'arsenal' or naval storehouse, and there he and his men lived and worked, studied maps and found out how best to use them. They learned mathematics, too—arithmetic, algebra, geometry—and all that they could about the stars and winds and tides. Prince Henry also improved the 'mariners' compass'

by which his sailors were to find their way in bad weather when they could not see the sun or the stars.

And, bit by bit, Prince Henry began to realize that he could do more towards finding a new way to the East if he stayed at home, teaching others and looking after the equipment of his ships, than if he set sail to explore the coast of Africa.

So there he remained, sending out his sailors, inspiring them with his own eagerness and courage, and taking care that their ships and stores were as good as he could make them.

In spite of all the care taken by Prince Henry and all the money spent by him, the ships that he sent out would seem to us absurdly small. Many of the ships which he hoped would reach India were not completely decked, and, being little more than what we should now call fishing-boats, were in great danger from the sudden storms that blow off the rocky coast of Africa. Nor was safety to be found on



AN ASTROLABE

An early instrument of navigation.

land, for the natives were unfriendly savages. As if these real dangers were not enough, there were terrible stories told of ferocious giants and fire-breathing monsters. Worse yet, it was said that if men sailed to the south they would go nearer and nearer to the sun, so that the sea would boil, their skins would become black, and at last they would be burned into cinders.

Many brave seamen set sail wondering if such a fate would be theirs, but so great was their love of Prince Henry that for his sake they were willing to face even these dangers.

One such seaman was driven westwards by a storm. Weary and anxious, he and his men saw with joy the shores of a little island. They named it Porto Santo, the Holy Port, in memory of their escape, and returned to tell Prince Henry of their adventure and of this island, which, they said, was well suited for white men to live on. Prince Henry sent out a number of colonists to inhabit and cultivate the island; but with the colonists he sent a pair of rabbits—and in three years there were so many rabbits that they had eaten up every green thing on the island!

Another sailor made up his mind to see for himself whether it were true that he would turn black if he sailed round Cape Bojador—the Bulging Cape—which many sailors had seen but none had dared to pass. So round Cape Bojador he sailed—and returned, rejoicing, to Portugal, to show that he was still white.

Year by year the Portuguese sailors explored farther and farther south, finding many wild animals and savage men, but no terrible giants or fire-breathing monsters. Year by year they came back to Prince Henry and told him of their discoveries, of bays where they had landed, capes which they had rounded, rivers up which they had sailed.



BUILDING A SHIP IN THE FIFTEENTH CENTURY

On the right the master ship-builder gives directions to the workmen.

All that they found out Prince Henry caused to be written down. He had a map made, too, to show their discoveries. Six feet high it was, and it took three years to make. On it were shown the great rivers up which the Portuguese had sailed, the Senegal and Gambia, where they had met Arab traders from distant countries—tall men in flowing robes, who told them of far-away lands where gold and precious stones were as common as pebbles. On it, too, were marked Green Cape (Cape Verde), White Cape (Cape Blanco), and the Lion Mountains—Sierra Leone.

Two thousand miles of newly discovered coast did the great map show; but the way to India it did not show, for long before the sea-route to the east had been found, Prince Henry the Navigator was dead.

§ 2. *BARTHOLOMEW DIAZ*

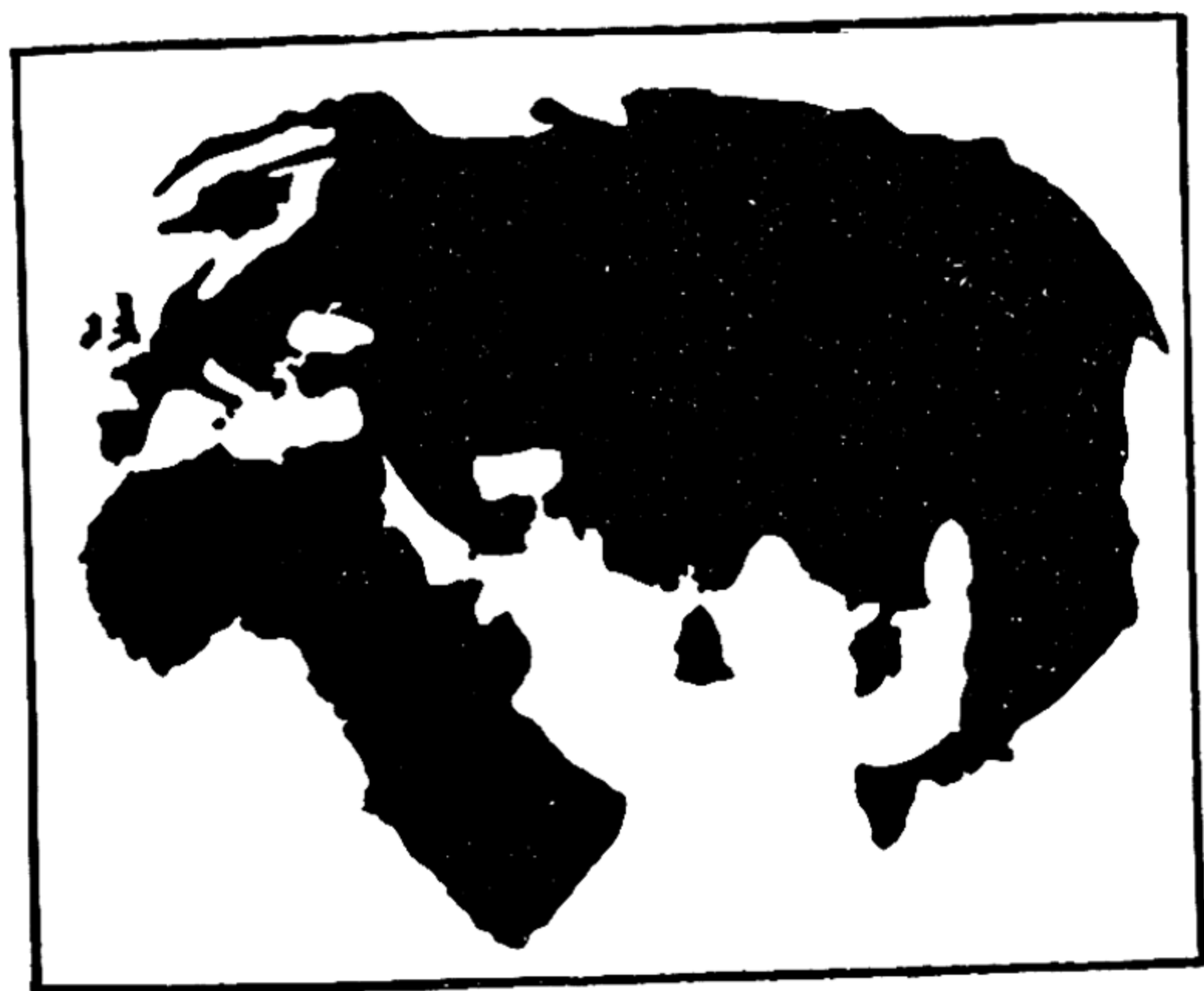
PRINCE HENRY was dead, but his spirit lived on among the sailors of his country, and in the year 1486 there put to sea one of the greatest of Portuguese explorers—Bartholomew Diaz.

Southward he sailed, till Cape Blanco died away to the north and the Lion Mountains were only a memory. Southward yet, till he came to a part of the coast never before reached by a white man. Now, he noticed, the sun at noon stood to the north of his ship, for, though he did not know it, he had crossed the Equator.

At a headland, which is called after him 'Diaz Point,' he landed and put up a pillar with his name on it and that of the King of Portugal.

Still southward he sailed, but a storm arose and blew him far away from land. It did not grow hotter, as he had expected, but colder and still colder, till his men looked for nothing but death, and prayed between chattering teeth. At last the wind dropped and they could sail north to the land they had left. Weary and dispirited, they came in sight of the coast of Africa once again; but they had been blown far to the eastward, farther than they knew, and were actually on the other side of the most southerly point of Africa. The sailors thought that though the coast had turned eastwards it would soon bend south again, that the continent had no end. Yet they were glad to be again near land, and Diaz joyfully anchored in the bay we call Algoa Bay, and set up another pillar with a cross on it—from which comes the name 'Santa Cruz' or 'Holy Cross.'

But the crew now called on Diaz to turn back. Many men had died, but the lives of some at least might be saved



MAP OF THE THEN-KNOWN WORLD MADE JUST AFTER
THE VOYAGE OF BARTHOLOMEW DIAZ
Compare with a map of the World to-day.

if they returned now. Diaz begged them to go on. Had they come so far and braved so many dangers only to turn back when they were nearing India? Let them thank God for their safety and press on. The men were angry and frightened; they did not believe they were near India, or that it was possible to get to India, so that not even the pleadings of Diaz could persuade them to go on. The utmost they would agree to was that they should sail on for three days. At the end of three days they had reached the mouth of what is called the 'Great Fish River,' and there Diaz landed and put up his last pillar.

Then he returned to his ship, and ordered his men to sail homewards. Wistfully he looked over the ocean in the direction in which he felt sure India must lie, and,

broken-hearted at seeing victory so nearly within his grasp yet not being able to achieve it, he sailed away.

On his journey back he was able to keep close to the shore, so that he sailed round and saw clearly the great headland that marks the southernmost point of Africa. 'Let us call it the Cape of Storms!' he said bitterly, as they turned northwards. But when he stood before the King and told his story, 'Let us not call it the Cape of Storms,' said the King, 'for that might make men afraid. Let us call it the Cape of Good Hope.'

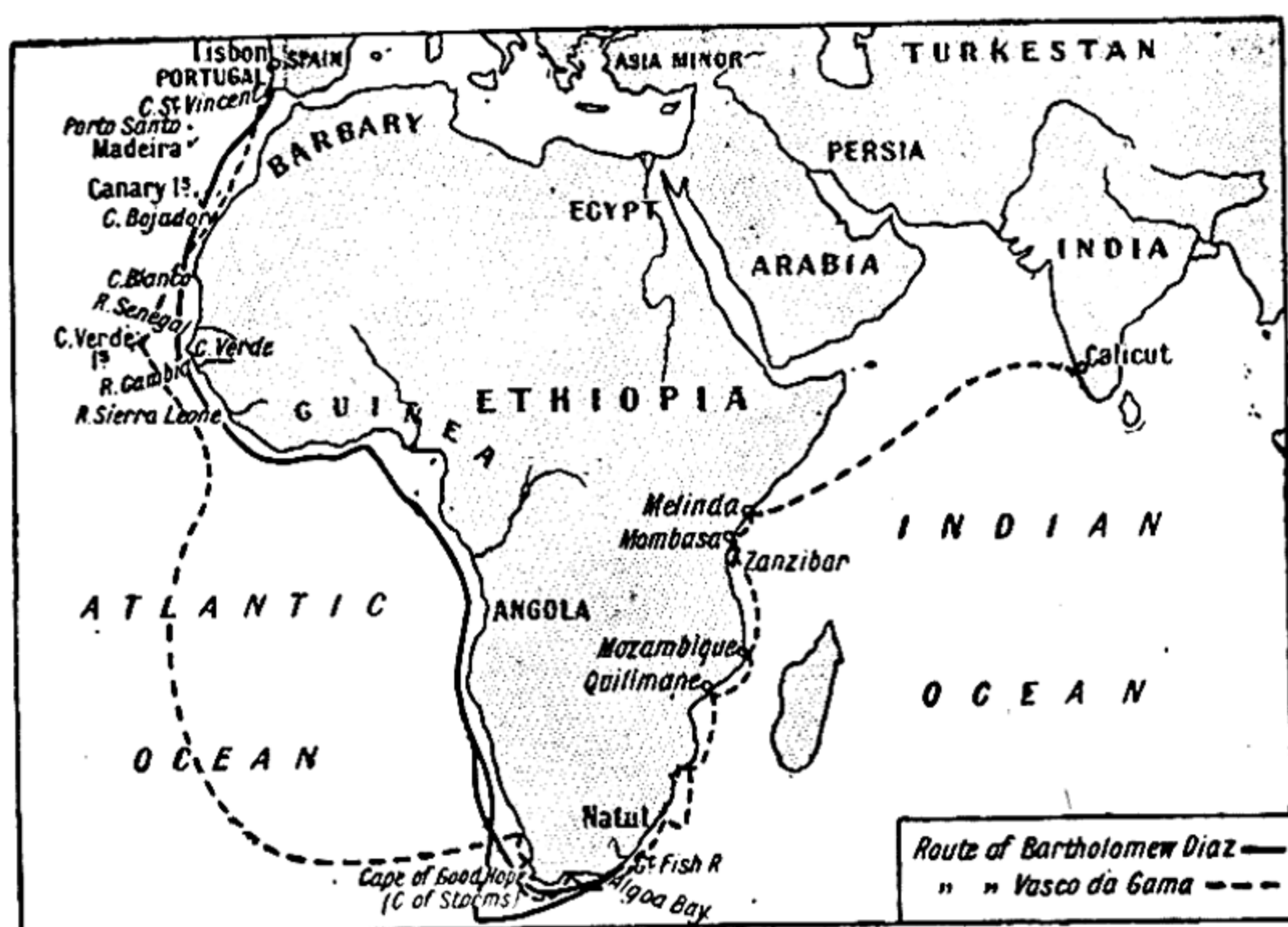
§ 3. *VASCO DA GAMA*

DIAZ had had to turn back without reaching India, but the King of Portugal was sure that a sea-route did exist; so he fitted out another expedition, and this time he gave the command to one of his courtiers—Vasco da Gama.

One July evening, when everything was ready, Vasco da Gama and his officers went to the little chapel that Prince Henry had built for his seamen to use, and there they knelt all night in prayer. Next morning they set sail.

When they reached the Cape of Good Hope a terrible storm arose. It seemed as if at any moment the ships might be broken in pieces by the fury of the sea; but when the sailors begged him to turn back, Vasco da Gama told them that 'He would throw into the sea whomsoever spoke such things.' The wind howled, the waves ran mountains high, ice-cold rain fell unceasingly, so that the sailors had to labour night and day at the pumps, and many died 'of their great hardships'.

As soon as the wind fell, Vasco da Gama ordered his men to put in to shore, for his ships had been so battered



by wind and waves that they could sail no farther unless they were repaired. One ship, indeed, was so badly damaged that she had to be left behind.

The remaining ships sailed on till they had passed the last pillar set up by Diaz and were heading northwards up the east coast of Africa. As no European had ever before seen these shores, Vasco da Gama gave names to the headlands and rivers, and the land which he saw on Christmas Day he called 'Natal,' or 'Birth,' because it was discovered on the birthday of Jesus Christ.

One day towards the end of March Vasco da Gama came to the island of Mozambique. The people there were not dark-skinned savages living in grass huts; their skins were fair, their homes well-built houses. In the harbour were ships laden with pearls and rubies, gold and spices. These belonged to Arab merchants who traded with Egypt, Arabia, and even India. Vasco da Gama asked these merchants which was the route they took to

reach India, but they wished to keep all the trade to themselves and would not tell him.

With difficulty Vasco da Gama hired two Arab pilots, but, at the next place at which he landed, he noticed them whispering to the people on the shore. He became suspicious. What were they whispering about? He must know. But the Arabs would not tell him, so Vasco da Gama ordered his sailors to 'question' them. The 'questioning' was done with boiling oil, and the poor Arabs were so horribly tortured that at last they confessed that they had been plotting against the Portuguese. Then, afraid of having to suffer further agonies, they threw themselves over the side of the ship and were drowned.

Luckily for the Portuguese, the ruler of Melinda, where next they landed, was friendly, and provided them with trustworthy pilots. Guided by these, Vasco da Gama struck boldly across the open sea.

Day after day passed, and there was no sign of land. For twenty-three days they sailed the Indian Ocean, with the burning sun above and the blue water beneath. In the dim distance there appeared a cloud. But it was no cloud—it was land, the long-sought land of India. Nearly eleven months after they had left Portugal, Vasco da Gama and his men sailed into the harbour of Calicut.

The King of Calicut, a fat man glittering with jewels, received Vasco da Gama in a courtyard of his palace. He lay upon a green velvet couch under a gilt canopy. Vasco da Gama told him that the king of his country was lord of many lands and of exceeding great wealth, and explained that the Portuguese had come to India for gems and spices. The King gave permission to Vasco da Gama to trade, but when next morning the Portuguese laid out



AN EARLY PICTURE OF AN INDIAN COURT

The Emperor—or Mogul—is receiving an embassy. The whole scene—building, costumes, people—is very much as one would find it at the court of an Indian prince to-day.

their goods, the Indians laughed at them. Jugs and basins! Hats and knives! 'Bring us,' said the King, 'gold, silver, and scarlet cloth. My country is rich in spices and precious stones; and as for what you have brought, we have better ourselves!'

The Arab traders who lived in Calicut were jealous of the Portuguese, and stirred up the Indians against them. Vasco da Gama and his men were in danger of their lives and determined to make their escape. One day they hoisted their sails, but they had not gone far when the wind dropped, and, as they lay hopelessly becalmed, they saw a great fleet of boats coming towards them crowded with armed men who brandished their weapons. Nearer the boats came and nearer. The Portuguese could look for no other fate save capture, torture, and horrible death. All of a sudden the wind rose, blowing from the shore. It filled their sails, and in a moment they were scudding across the sea, leaving far behind them the boats of the Indians.

It had taken Vasco da Gama and his men eleven months to reach India; it was to take them over a year to return. They brought with them spices and jewels, and, better still, news of the sea-route they had found to the east. But it was a little band of men that carried the news, for of the one hundred and forty-eight who had set out, only fifty-five returned home.

Cheering crowds greeted Vasco da Gama on his return; courtiers led him to the palace where the King himself rose from his chair to greet him; but amidst all the praise and honours which were lavished upon him, he did not forget to go to the little chapel where he had knelt in prayer two years before, and there give thanks.

The work of Prince Henry the Navigator was complete.



A VERY EARLY MAP OF THE WESTERN OCEAN

Made by Toscanelli in 1474, this map was known to Columbus. The grey part (not, of course, on the original map) shows the land as it really is, the black as Toscanelli thought it must be.

CHAPTER IV

THE ROAD TO THE EAST, 3¹

§ 1. *COLUMBUS*

‘Chains for him
Who push’d his prows into the setting sun,
And made West East, and sail’d the Dragon’s mouth,
And came upon the Mountain of the World,
And saw the rivers roll from Paradise!’

MORE than a hundred years after Marco Polo sat in a Genoese prison writing his book of adventures, there lived in that same city of Genoa a blue-eyed, red-haired boy called Christopher Columbus. He was the son of a weaver, and, as soon as he was old enough, he, too, learned to weave, for his parents were poor and needed the help of their children. And so in the evenings Christopher and

¹ The map of American exploration will be found on the back endpaper.

his brothers would sit by their parents, weaving the cloth which was to be sold in the market.

But, as he sat working, Christopher's thoughts often wandered away from the cloth he was making, and took him on exciting journeys far from his poor little home in Genoa to the vast countries of the East. Their very names set him dreaming; but as yet he was only a very small boy, and lessons and weaving filled up all his days so that there was little time to spare for dreams.

Now in those days Genoa was a busy seaport and its quays were thronged with sailors whose ships had just returned from far-off lands. Like Marco Polo before him, Christopher liked nothing better than to make his way to the waterside and have a peep at the bales of rich cloth, the boxes of spices, and all the other beautiful and precious things of the East. But he dared not loiter too long amongst the ships, for his father and mother needed him and he had to run back to his weaving.

The years went on and Columbus grew up, making his cloth, finding out as much as he could about the lands beyond Italy, and all the while dreaming of adventures ahead.

When Columbus grew older he went on many voyages, one of which took him to Portugal. There he soon became well known, for his love of the sea and ships, and the knowledge that he had gained year after year from the Genoese sailors, made him a favourite with his new friends.

Columbus listened to the tales of adventure told by the Portuguese on their return from the coast of Africa; but he did not offer to join them, for he had a plan of his own which he dared not tell just yet. So he listened to them, and all the while studied the maps and charts which the

Portuguese were learning to draw, found out as much as he could about the new instruments that were being made for guiding ships, and learned all about the tides and winds.

The plan which was in his mind grew and grew, till at last there came a day when he went to the King and told him that if he could only have sailors and ships he would sail away to the west, and perhaps reach the land of the great Kublai Khan; or he might



A TORNADO, OR WIND STORM, A TERROR OF THE WEST INDIES

This is not a sausage-shaped balloon, but cloud—cloud made by the wind to rush round in terrible circles, catching up everything over which it passes and flinging it aside. Many of the frail ships of the early explorers perished thus.

even reach India—for some men now said that the world was round, and if that were so he could reach the East by sailing west. Columbus was sure that only the Atlantic Ocean lay between him and the lands of the Far East; but the King was not so sure, and hesitated.

Columbus was angry at this delay, and hurried off to Spain. There he went to King Ferdinand and Queen

Isabella. Again Columbus was disappointed; but he did not give up hope, and after many years of waiting he was at last called to the Spanish Court, and so enthusiastic was the Queen that she persuaded the King to listen to the plans of Columbus, and give him the chance for which he had waited so long.

The next few months were busy and anxious ones for Columbus, so eager was he to start; but much had to be done before that could be, for ships had to be equipped, and not very willing sailors had to be forced into his service. It was all very well, they thought, to sail down the coast of Africa with the shore in sight most of the time, but to sail west over an unknown ocean under a Genoese Admiral was a very different adventure. At length, however, on the 3rd of August 1492, all was ready, and Columbus sailed away to the west in his flagship, the *Santa Maria*, accompanied by two smaller vessels, the *Pinta* and the *Nina*.

The adventure had begun! Gradually the shores of Spain faded away; soon the Canary Isles, too, were left behind, and only the ocean lay round them—and now the eyes of Columbus kept looking west. Week after week passed, and the wind blew them steadily along; but still nothing could be seen except the ocean. Columbus each day grew more eager to go on, the sailors more determined to go back. They grumbled among themselves until it seemed as if a mutiny would break out, but Columbus would not give in.

After weeks of anxiety, and after sailing more than three thousand miles, there came signs of land—little signs, to be sure, but enough to renew the courage of the men and to make the heart of Columbus thrill with hope. At one



THE *SANTA MARIA*

As she would look, a tiny 'cockle shell', side by side with a modern Atlantic liner.

time weeds came floating by; another day a white bird was seen, and, later still, a stalk on which berries grew. Every one grew cheerful, and every man was anxious to be the first to sight land.

On 12th October, early in the morning, the *Pinta* sent out the signal that land lay ahead. But which land? No

one knew—perhaps it was India. Daybreak showed the eager watchers the shore of a flat, tree-covered island, and Columbus, wearing his scarlet cloak, rowed ashore. Having unfurled the Royal Standard of Spain and set up a cross, he knelt down to thank God for the safe ending of a dangerous voyage. The natives, though at first afraid,



COLUMBUS'S FLEET REACHING AMERICA. FROM A WOODCUT
OF 1494

Great sea monsters—larger than the ships—are raising their heads above the water! Evidently the artist had been listening to some very exaggerated sea stories.

began to gather on the shore, for these were the first white men they had seen, and never had they seen such ships. They were a gentle race of people, timid and yet willing to make friends, and soon Columbus and his men were trading quite freely, giving jugs, bottles, and glass beads for spices and cotton, gold and beautiful jewels.

Other islands lay near, and to these sailed Columbus and his men, trading, exploring, making friends with the inhabitants, and all the while marvelling at the beauty around them.

Columbus wrote of great trees stretching up to the stars, of nightingales singing in the month of November, of brightly coloured fish, flocks of parrots, flowers and spices of every kind, and always, beyond all these, the hope of gold. After visiting many islands, claiming each one for the King of Spain and giving each a name, Columbus prepared at last for his homeward voyage—eager to carry to Spain the wonderful news of all he had seen.

After a long and stormy voyage Columbus reached the shores of Portugal, and there was greeted by Bartholomew Diaz—the two most daring explorers of that day must have had much to tell each other as they met on board the small ship of Columbus! A few days later Columbus reached the little port of Spain which he had left so long before. The news quickly spread through the country, and from all parts came crowds of people, as eager now to greet and praise the Genoese sailor as they had been ready seven months before to scoff at his plans.

The journey to the King's Court was one continuous triumph. The roads were crowded, flags were waved, and shouts of joy filled the air as the gay procession went along the streets of Seville. The splendours of the West were carried high, so that all might see and wonder at them. Six natives were there, and birds with bright plumage; tropical plants and beautiful jewels were carried along, and Columbus himself rode on horseback among the greatest nobles of Spain. On they went till at last they reached the Court, and Columbus found himself telling the wonderful

news to the King and Queen amidst a vast crowd breathless with excitement.

After six months Columbus set off again. There were no unwilling crews this time; sailors clamoured for the honour of accompanying the Admiral. Men, eager to settle in the newly found islands, joined in the adventure. Once more Columbus reached the islands, and from one to another he sailed, sometimes finding new ones, sometimes visiting those he already knew. Jamaica, Cuba, Haiti—all these and many others he explored, till once again he set sail for Spain. This time, however, no joyful greeting awaited him; for already a ship had reached Spain with unruly and discontented settlers who blamed Columbus when things had gone wrong.

Columbus, still undaunted, set out a third time; but now on reaching the islands he sailed south, hoping to find more land, and soon came to the coast of South America near the 'Dragon's Mouth'—the great Orinoco River. Little did he realize that this was really a great new continent! Hurrying back to the islands with the news of what he had seen, he found the settlers there still discontented and difficult to manage—and still ready to blame him. A governor was sent out to take the place of Columbus, who was put in chains and led on board a ship bound for Spain.

By now Columbus had become an old man, his hair had turned white; but once again he stood bravely before the Queen and told his story. The Queen still believed in Columbus, and in 1502 he set off on his fourth and last voyage. He reached the islands once more, and this time sailed on looking for land beyond. He reached the coast of Honduras, and then voyaged south as far as Panama; but the seas were stormy, the weather bad, the food nearly



ARMS AND ARMOUR IN EARLY EXPLORATION

The tales brought home by travellers of fights with occasional bears would have given rise to this very fanciful engraving.

finished, and Columbus, old and weary, returned for the last time to Spain.

And what lands had he found? Cathay and India? Neither of those—he had found a new continent. The islands which he called the Indies, because he thought they lay off the coast of India, lay off the coast of a great new world unknown as yet to Europe. Columbus had shown the way. He had thrown open the gateway to the West, and both honour and riches were now to come showering home on Spain as he had dreamed they would.

The people of Spain could think of nothing but the West and the lands that lay there. Never before had the sea-ports been so busy. Ship after ship left, some with men anxious to settle in the beautiful green islands, others with explorers bent on finding out more about the mainland beyond the Indies—all eager for gold. One of these sailors, a Portuguese called Amerigo Vespucci, sailed farther south than the others, skirting the coast and exploring as he went. After many such voyages he realized that this land was not India nor yet was it Cathay. He decided that it must be a new land altogether, a new world, and men called it America after the Portuguese sailor.

§ 2. *BALBOA*

BOLD captains and gallant sailors now sailed up and down the coast of America, wondering how far it reached to the north and how far to the south and how much still lay to the west, for they had no idea of its size.

In the Spanish island settlement at Haiti there lived a Spaniard, Balboa by name, 'a gentleman of good family.' Unfortunately Balboa found himself in debt, and as debtors were not allowed to leave the island he was forced to stay there. Now Balboa, being fond of adventure, had no desire to stay in Haiti, and he decided that by some means or other he must get away.

At last came his chance: one morning the harbour at the little settlement was all astir, for that day a ship was leaving for the mainland and sailors were busy. Some were overhauling the sails, others were busy on deck, and others were carrying supplies of food on board. As the casks and barrels of provisions were brought on deck, one of these seemed particularly heavy. Like the others it was well

nailed up, for food had to be protected from sea-water and the hot sunshine of the tropics. And so the heavy cask was rolled on board with the others, and at last all the fuss and excitement of a departing expedition was over, the ship was well under way, and the shores of the island were soon left behind. Everything went on as usual till the ship was far out at sea. Then one morning the heavy cask was burst open and out stepped Balboa! The captain was indignant,



Balboa viewing
the Pacific Ocean.



Balboa taking the Pacific Ocean
in the name of Spain.

PANAMA HISTORY, COMMEMORATED ON THE POSTAGE STAMPS OF THE COUNTRY

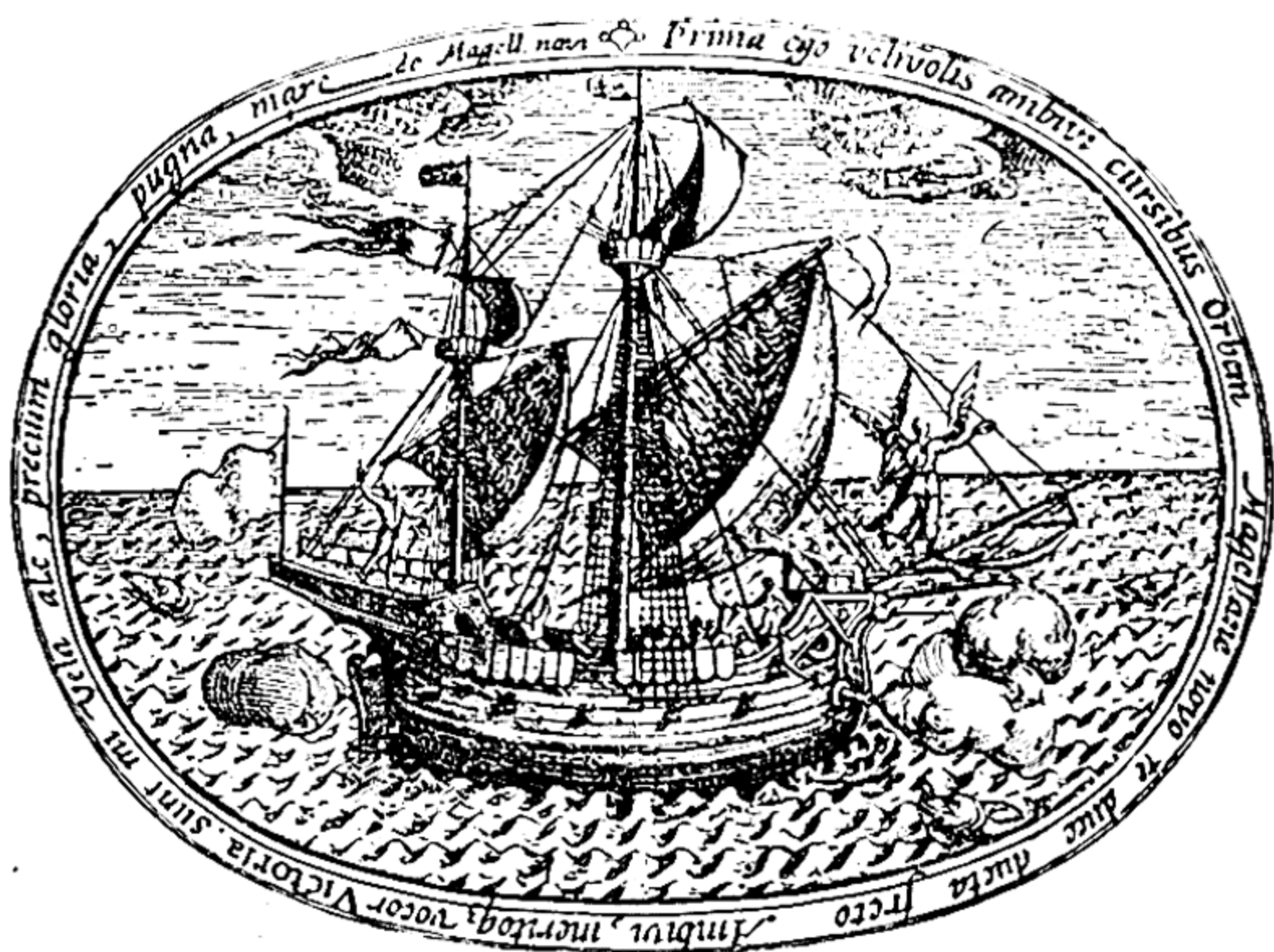
but allowed him to stay on board; and it was well that he did so, for not long afterwards the ship was wrecked and the sailors were cast ashore on the mainland. Now it so happened that Balboa knew this coast, and could direct the men to the mouth of a river called by the Indians the Darien, where the land was fertile. They defeated the Indians and settled there, and Balboa soon became Governor of the little colony and began trading in gold for Spain.

Before long the Indians noticed the Spaniards' greed for gold, and one day, pointing to the distant mountains, one of them told Balboa of a land which lay to the south

where there was more gold than he had ever dreamed of. He told him of rivers which flowed down their southern slopes into a great sea, of kings who ate and drank out of golden vessels—and as Balboa listened he grew more and more impatient to be off. He could scarcely wait to collect the men—two hundred of them—who were to go with him. It was a long and dangerous march through deep marshes and dense forests. They encountered storms and warlike tribes; but on they went, for so eager were they to grasp the treasure that no danger was too great for them.

After many days they passed through the jungle, came out on the clear mountain side, and there they halted. Balboa went on alone, for he wished to be the first to reach the top and see what lay beyond. Up he climbed until he reached the summit, and there, as he gazed down the tree-covered slope of the mountain and across the low-lying shore, he saw an ocean—wide, peaceful, and shining in the noonday sun. Joyfully he called his men together, and they set up a wooden cross and left a pile of stones to mark the spot. Then they hurried down the mountain side and across the flat, sandy shore till they reached the ocean. Balboa, fully armed, and carrying the Royal Standard of Spain, plunged into the water, waded in up to his knees, and claimed the ocean for his King.

The men noticed some canoes lying on the shore, and, hauling them down to the water's edge, they sailed out into the blue sea, the first white men to sail on the new ocean. Storms prevented them from voyaging far, however, and taking some gold and pearls with them they at length returned to Darien, to send still more news home to Spain—the news of a vast ocean of which no one had ever dreamed.



THE VICTORIA
From an old print.

§ 3. MAGELLAN

'I remember the black wharves and the slips,
And the sea-tides tossing free;
And Spanish sailors with bearded lips,
And the beauty and mystery of the ships,
And the magic of the sea.'

ON an August day, in the year 1519, the town crier of Seville went up and down the streets of the city, calling for men to take part in still another expedition. Men heard him, talked it over among themselves, but decided to do nothing. It seemed that no one wanted to take part in this expedition. The ships were old, their timbers soft as touchwood, the captain was a Portuguese—and, in any case, no one was sure where the expedition was going!

With great difficulty two hundred and thirty-seven men were at last found—men of all nations, including one Englishman—to man the five little vessels that lay in the harbour. Bells, mirrors, knives, scarlet cloth, and combs were carried on board, and at last they gallantly sailed off, the captain's ship *The Trinidad*, with a torch on the poop, leading the way.

Southward they sailed to the shores of Africa, and then west; for the captain, Ferdinand Magellan, was off to find a way into the great new ocean and to cross it if it were possible. Encountering terrible storms, they at last reached the shores of South America, and sailed south, searching always for the opening which was to lead them out of the Old World into the New. Great river mouths they found, and safe harbours where they rested for a time; but always they pressed on to the south. Strange people lived on those shores. A writer who accompanied Magellan wrote, 'The Brazilians build long houses. One of their houses sometimes contains a hundred men with their wives and children; there is consequently always much noise in them.' They traded with these people and for a knife would get as many as four or five fowls; for a comb, fish for ten men or a basket of fruit.

For some time the sailors had been discontented, and had wished to turn back. The crews of three of the vessels were against Magellan, and the voyage might have ended there and then had it not been for the swift action of the leader. Two traitors were executed, and two left on the bleak shore of an unknown country. No other mutiny broke out; the crews now knew the character of their captain.

As they sailed on, past what is now called Patagonia,

they saw natives on the shore—giants who were twice as tall as the sailors and who at one meal could eat a large basketful of biscuits and quantities of rats, without even skinning them, and drink half a bucket of water at a single draught. The sailors made friends with these giants, and gave them scarlet cloth, bells, and other trifles with which they were delighted. When one of them received a mirror and saw himself in it for the first time he was so startled that he leaped backwards, knocking over four Spanish sailors who were standing near.

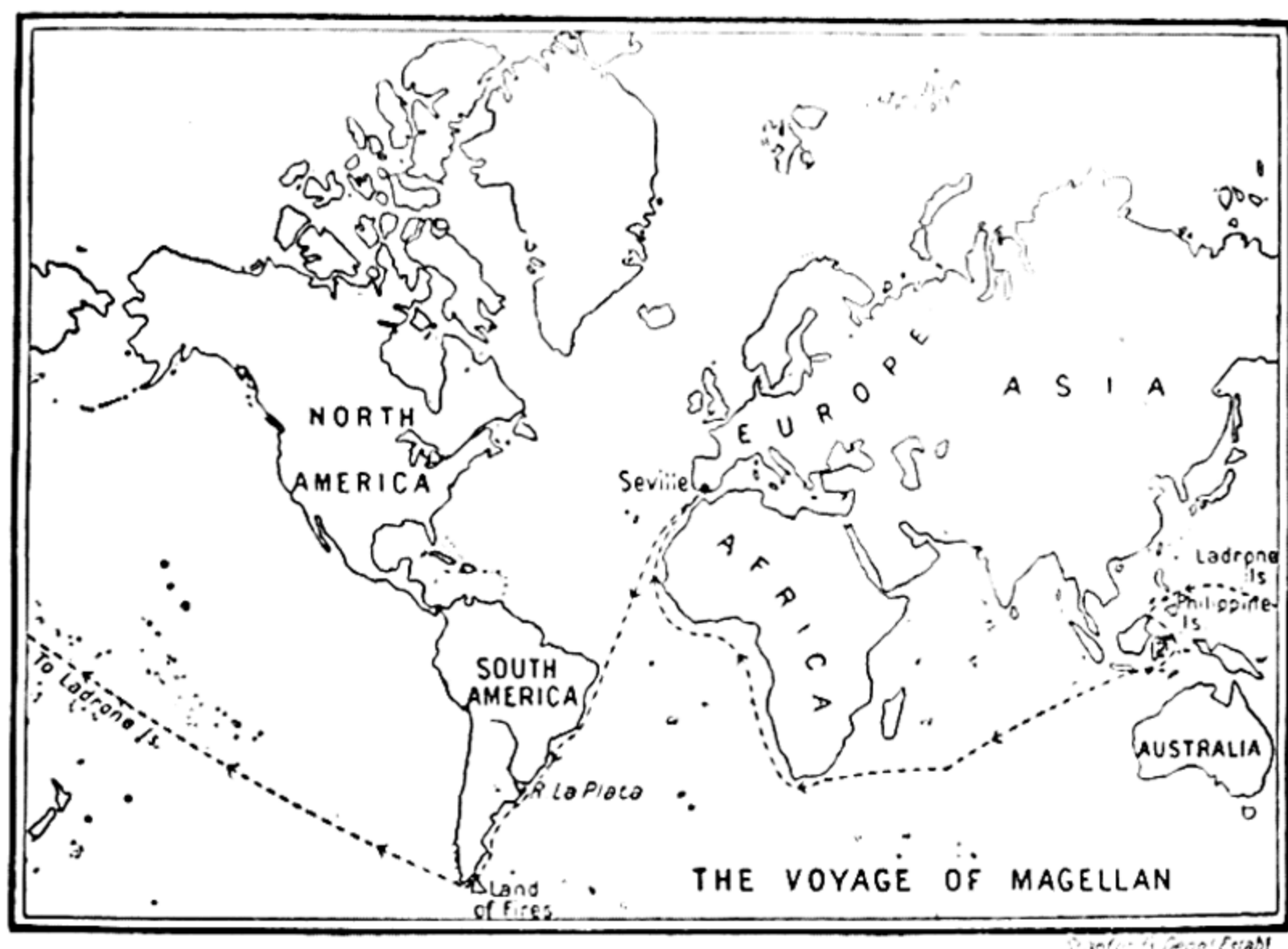
Still they sailed on, looking for the way to the west, till one day they came upon a narrow winding passage which they entered. The sailing became difficult, as the sea was deep and the bays and capes difficult to navigate. At first the shores on either side were flat; but soon the land became mountainous, and snowy peaks towered up in the north. To the south lay a cold bleak land from which they could see smoke ascending at various places from fires lit by the natives, and because of them Magellan called the land 'Tierra del Fuego,' or the Land of Fire.

For five weeks they sailed. The sailors pleaded with Magellan to turn back, but the only answer they got was, 'If we have to eat the leather on the ship's yards, yet will we go on!' At last they



A FLYING FISH

The 'wings' are really fins, which enable the fish to leap out of the water and skim over the surface for quite long distances and so avoid pursuing enemies.



rounded a cape, and found that they had reached the end of the Strait which now bears Magellan's name. 'We wept for joy,' said a writer who accompanied the expedition.

Only three ships sailed into the great new ocean, for one had been wrecked and another had turned back. As they entered it they saw great shoals of flying fish leaping from the water. For three months and twenty days they sailed north-west across the ocean, and not once did they encounter a storm. Little wonder they named it The Pacific!

In their wildest dreams the men had never pictured an ocean like this. On they sailed, week after week, with no land in sight, food running short, and the sailors overcome with weariness and fatigue. Magellan's words came true: they were forced to eat the ox-hides with which the masts were covered. The water was bad, and many of the men died. When all except Magellan had ceased to care what became of them, and had given up all hope of reaching land, they at last sighted some islands where they found

bananas and coco-nuts growing in abundance. They were greeted by the natives, who sailed out to meet them in narrow canoes, and after resting for some days they set off again, refreshed and encouraged.

Soon they came to the group of islands later called the Philippines, after the King of Spain. From island to island they sailed, claiming each for Spain, converting the natives to Christianity, and collecting as much gold as they could. The King of one of the islands, wearing ornaments of gold, came on board Magellan's ship, and was greatly interested in all he saw. Magellan in turn was asked to dine at the King's palace, which he entered by a ladder, as it was just like a barn built on top of four poles and thatched with palm leaves. There, sitting cross-legged on a mat, he dined by the light of torches off newly gathered ginger, rice, and pork.

At another island they landed and were taken to the King, who wore a necklace and ear-rings of gold. They converted him to Christianity along with his Queen, a beautiful, young, bare-footed girl dressed in black and white, a silken scarf about her shoulders, and wearing a large hat to protect her from the hot sun. During the next few days thousands of the islanders became Christians, and the King took the oath of allegiance to Spain.

So friendly did Magellan become with this King that he promised to help him against the natives of a neighbouring island who would not agree to serve Spain. The Spaniards landed there, but the natives outnumbered them. The fight became fast and furious, and in the midst of it Magellan fell, his leg pierced by a poisoned arrow. The natives rushed at him and stabbed him to death. His men now fought their way back to their ships—tired, disheartened,

and without a leader. 'Thus perished Magellan, our guide, our light, and our support,' wrote one of them.

The ships then sailed away; but now their task was easy, for they had reached the Spice Islands. Home they went, past Borneo—so big that it took three months to sail round it—past Java, Sumatra, and countless other islands, all rich in cloves and nutmeg, camphor and cinnamon, where fruits and beautiful trees grew and strange peoples lived. By this time only one ship was left. On she voyaged across the Indian Ocean, round the Cape of Good Hope, and so north to Spain. One September morning she sailed into Seville harbour with eighteen weary men as crew. No shouts of joy were heard this time, for Magellan, their captain, had perished with most of his men. Only the *Victoria* had sailed right round the world, and the captain who had brought her home received from the King the crest of the world with the motto *Primus circumdedisti me* (Thou didst first encircle me).



COAT OF ARMS OF SYLVESTRE DEL CANO, CAPTAIN OF THE
VICTORIA

The supporters are Malay kings, bearing spice branches.

CHAPTER V

ELDORADO

§ 1. *THE CONQUEST OF MEXICO: CORTES*

‘I stood where Popocatepetl
In the sunlight gleams.’

ONE February morning in the year 1519 a great company of men might have been seen on the shores of the beautiful island of Cuba. Before them stood their leader, Hernando Cortes, a young man, tall and soldier-like. Like many another Spaniard of that day, Cortes had left Spain for the New World, ‘where gold as well as glory was to be won.’ With a loud, clear voice he was addressing his men: ‘I hold out to you a glorious prize, but it is to be won by incessant toil.’ His words made the men eager to be off, and glad to obey such a leader.

About a year before, news had reached Spain of a great country to the west of Cuba which the natives called Mexico, and the King of Spain, always eager for more riches, chose Cortes to lead an expedition there. Cortes was delighted with the honour of being chosen as leader, and proudly he stepped on board ship that morning, with his flag ‘of black velvet, embroidered with gold and emblazoned with a red cross amidst flames of blue and white.’

It was April when the ships reached the coast of Mexico, and Cortes and his men landed on the lonely shore, where the busy town of Vera Cruz now stands. The natives were friendly and came to greet the strangers. They helped the men to build huts as shelters from the weather, and brought them food and ornaments of gold. Soon the camp

looked like a great market-place, for the natives, or Aztecs as they were called, bartered fruit and vegetables for the bells, beads and mirrors that the Spaniards had brought with them. Men from all the surrounding districts came to see for themselves the strangers about whom they had heard, for news travels quickly, and already the Spaniards were being talked about up and down the country.

The Governor of the district now came to greet Cortes, who told him of the great empire of Spain and of its powerful king who ruled over so many countries. The Governor was greatly surprised to hear of another powerful king, for, said he, the great ruler of Mexico, Montezuma, was so mighty that none might look on his face. Presents were then brought, bales of cloth, ornaments of gold, and some exquisite feather-work. Cortes received these gifts, and in exchange sent gifts to Montezuma, a scarlet cloth cap, decorated with gold, a heavily carved chair, ornaments of cut glass, and a Spanish helmet.

One day one of the natives took a pencil, and on a piece of cotton made drawings of the Spaniards, their armour, their horses, and their ships, which the natives called 'water houses.'

The drawings were taken to Montezuma along with the gifts, so that he might see for himself the strangers who had landed on his shores. To impress the natives still more, Cortes ordered his men to drill. Trumpets blared, horsemen charged, swords flashed in the sun; and the Aztecs wondered at all they saw.

Before many days had gone by, the messengers returned from Montezuma, bringing with them still more gifts for Cortes: ornaments of gold, feather-work sprinkled with pearls and precious stones, cotton of rich colour, the



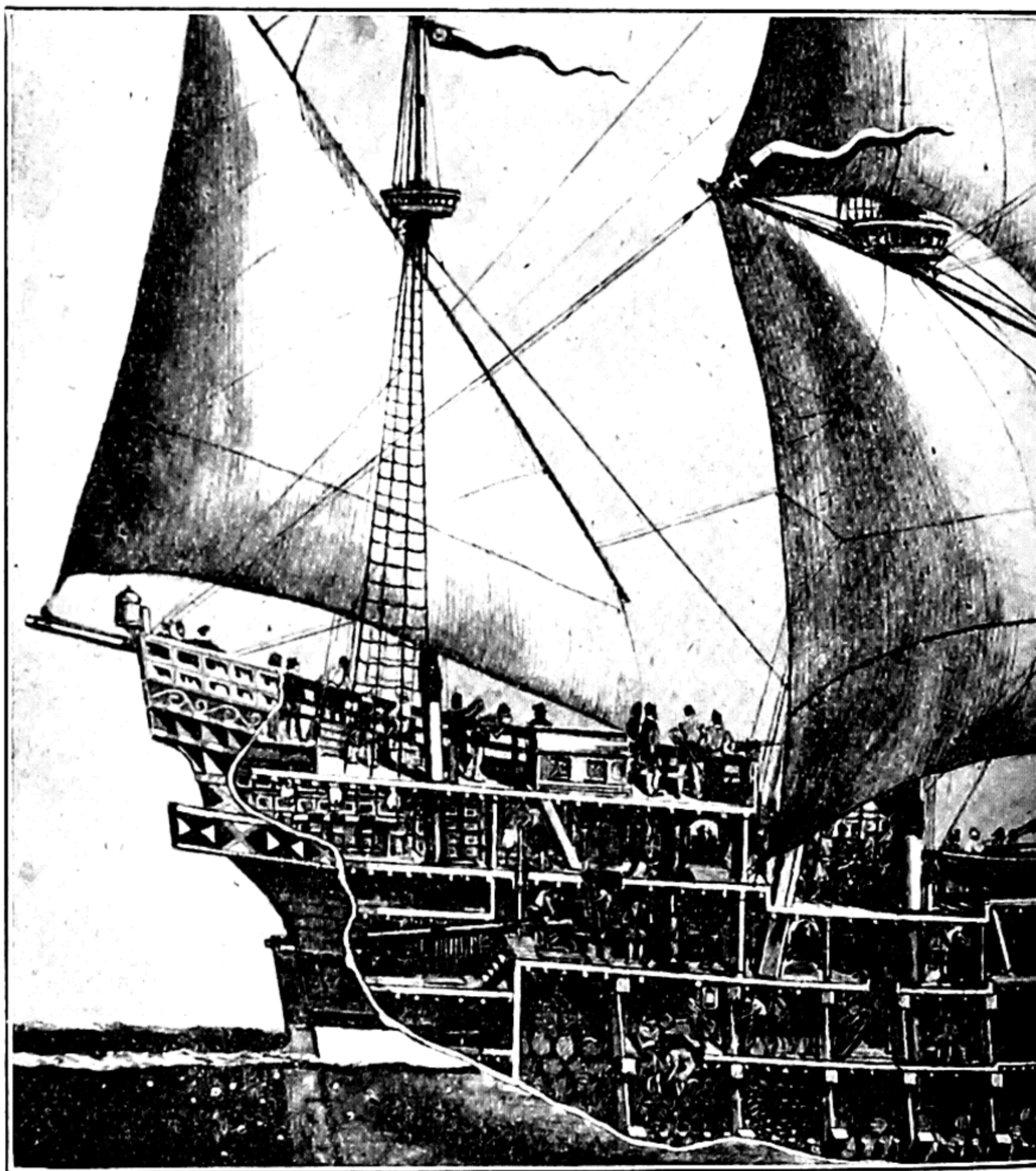
POPOCATEPETL—'THE HILL THAT SMOKES'

It was a brave man indeed who allowed himself to be lowered into the crater of a volcano that might 'smoke' at any moment.

Spanish helmet filled with gold, and, most precious of all, two great plates, one of gold and the other of silver, 'as large as carriage wheels.'

When Cortes saw these riches he determined to reach the capital of the country and see the King for himself. He destroyed all his ships but one, and then, turning to his men, gave them the chance to sail back to Cuba on that one ship and wait there till he should return with the spoil. Not a man stirred. A shout went up, 'To Mexico! To Mexico!' All were for Cortes and the great adventure.

Away through a land of fruit and flowers they marched, through forests where the air was filled with perfume, and



A SIXTEENTH-

Typical of the ships that now made regular voyages to the
the inside of the

brightly coloured birds and insects flew on wings that glistened like diamonds. Then came the mountains. The road climbed steeply through pine-trees; the air grew colder. Showers of sleet and hail fell, and the Spaniards were glad of their thick jackets of quilted cotton. Up to an open stretch of country they toiled, past great Popoca-



CENTURY WARSHIP

'New World.' One of the sides has been cut away, so that ship can be seen.

tepetl, 'the hill that smokes.' Struck with wonder at the sight, they hurried towards it, but were driven back by whirling clouds of ashes. Later, one of the men was lowered down the crater in a basket for four hundred feet. When he was pulled up he had brought with him sulphur, which they used to make gunpowder.

For three months they marched on, until at last they saw before them the Valley of Mexico, a great plain, with hills shadowy in the distance, with five great salt lakes shining in it, with fields of maize and forests of cedar, and cities gleaming in the sun—and, in the midst of all, the golden city of Mexico itself, with its white towers and temples, built like Venice in the water. And as they saw it all, the Spaniards cried out, 'It is the Promised Land.'

At length they reached the edge of the lake on which the city was built. A causeway, five miles in length and wide enough for eight men to ride abreast, took them right up to the bridge by which they would enter the city.

Montezuma came to meet them. First came three officers of state, carrying golden wands; then the royal litter, blazing with burnished gold and borne on the shoulders of nobles. Over it was a canopy of bright feather-work, powdered with jewels and fringed with silver. Tapestry was spread on the ground, and Montezuma descended, dignified and solemn, green plumes waving on his head, his cloak sprinkled with pearls and emeralds, wearing sandals with soles of gold.

And so Cortes met the Lord of this great land, and Montezuma greeted the white stranger who might well have been a messenger from the fair-skinned prince of whom their legends told them—for long ago, ran the tale, a god ruled Mexico. Then, in that Golden Age, the earth was covered with flowers and fruit, the air was full of perfume and the song of birds; but the prince-god had left them, sailing far from the shores of Mexico in his skiff of serpent skins, promising to return some day to his people.

Cortes placed a necklace of coloured crystal round the



THE SPANIARDS IN AMERICA

Taken from the title-page of a sixteenth-century book, these pictures show (above) the better armed Spanish forces easily able to overpower the native army, and (below) the native king kept prisoner until a great treasure shall have been gathered to pay for his release.

neck of Montezuma, who was then borne off to his palace. Crowds of people rushed hither and thither as along the main street rode the Spanish horsemen, their weapons glancing in the sun; by houses whose flat roofs were hidden beneath flowers; by the vast market-place thronged with people; by temples whose altars blazed with fires that never went out; by the greatest temple of all, the Temple of the War God, where every day a human sacrifice was made on a great block of jasper: till at length the Spaniards reached the palace where they were to stay.

Soon Montezuma visited Cortes, bringing with him a

necklace of gold. Cortes asked him to give up a religion which demanded such horrible sacrifices, and become a Christian; but Montezuma refused, though he gave the Spaniards permission to worship in one of the temples, and each day the hymns and prayers of the white men mingled with the wild chants of the Aztecs to their War God.

One day, without any warning, Cortes seized Montezuma and made him a prisoner, for he was afraid that the Aztecs might suddenly tire of their visitors, and he felt more secure with the King in his power. Then he demanded gold, and in his eagerness to please the Spaniards, Montezuma ordered all the cities of Mexico to bring their gold, silver, and rich cloth, while he himself gave three great heaps of gold and precious stones.

As the weeks passed, the natives became discontented and unfriendly, and suddenly a rebellion broke out in the city. In the midst of the fighting Montezuma appeared in his royal robes of blue and white fastened by a clasp of emerald, and, standing on a balcony of the palace, he looked down on the confusion below. The fighting stopped; all was silent. Montezuma was speaking to his people: 'Your King is no prisoner; the strangers are my guests,' he said, and as he proclaimed himself the friend of the Spaniards, the Aztecs called him coward, the fighting began again, and confusion reigned. Stones were flung, and one of them struck Montezuma. Terrified at what they had done the natives rushed from the scene. Montezuma was overwhelmed with grief. He had been scorned by his own people; they had called him coward. So terrible was the thought that nothing could comfort him, and some days later he died.

The Spaniards were now in great danger, and Cortes realized that they must get away from the city as quickly as possible. He called his men together, gave them orders to prepare for the march to the coast, and, knowing their greed for gold, added, 'He travels safest in the dark night who travels lightest.'

By midnight all were ready, and silently the Spaniards stole from the palace, carrying with them as much treasure as they could. They reached the causeway. The night was cloudy and a drizzling rain fell. Their haste was great, for their only desire now was to reach the coast. Suddenly through the darkness came the booming sound of the great drum in the Temple of the War God. Then came the rush of countless natives, the splash of boats on the lake, the hissing of stones and arrows, and the yells and war-cries of the Aztecs. The enemy was upon them! All night they fought. Many were killed, many taken prisoner, many fell into the lake, and, weighed down with their gold, were drowned. Bales of rich cloth crashed into the lake, chests of gold sank beneath the waters, all was confusion that 'melancholy night,' and in the morning Cortes wept when he looked on those who were left, and thought of the brave men who had lost their lives.

After many weeks the Spaniards at last reached the coast. Cortes would not give in, and was determined that he would go back and take the city of Mexico. Nearly a year later he reached the capital once again with a great army of men who had come out to help him. This time he had with him a ship-builder who had built thirteen ships. These had been carried up in pieces to the lake, and there put together. They were launched, and to the sound of music, the roar of guns, and with the flag of

Spain waving in the breeze, they sailed to the city. After a long siege it was taken. The Spaniards had conquered Mexico.

§ 2. *THE CONQUEST OF PERU: PIZARRO*

‘Chimborazo, Cotopaxi—

They had stolen my soul away!’

MANY years had passed since the Indians had pointed south and told Balboa and his men of the riches that lay beyond the mountains. Balboa was now dead, but Pizarro, one of his men who had been with him that day, still lived, and had never given up hope of some day reaching the Land of Gold.

At length his chance came, and he sailed from the harbour of Panama down the coast of South America, with its vast forests and its swampy river mouths, the haunt of deadly insects. Far in the distance rose the giant peaks of a great mountain range. It was too big an undertaking, however, for so small an expedition, and he had to sail back to Panama.

A second time he set out. He realized the dangers ahead, but would not give in. He landed on the shores of South America, and, calling his men together, he took his sword and on the wet sand drew a line from east to west. ‘On that side,’ he said, pointing south, ‘are toil, hunger, and death; on this side, ease and pleasure. There lies Peru with its riches, here Panama and its poverty. Choose each man. For my part, I go to the south.’ Immediately fourteen men crossed to the south of the line, and together with Pizarro they set out for the unknown. They made their way down the coast, explored river mouths, entered villages, saw



INCA RUINS OF PERU

The Indians have dressed themselves in the costumes of their ancestors—the costumes Pizarro saw—for the annual performance of a Festival play.

temples with walls of gold, and heard of the great wealth of the Inca Court far away amongst the high mountains called the Andes. Having made sure that the adventure was worth while, Pizarro returned to Spain to tell of this mighty empire amid the Andes, and gain permission to conquer it for Spain.

At last everything was ready, and in 1531 Pizarro set out with three hundred men to conquer Peru. Again they landed on the coast of South America, and, at the mouth of a river, halted for a time. Wood was cut, stone was quarried, and before long a town was built. Some of the Spaniards stayed behind in the town so that they might send help to Pizarro if, later on, he should need it.

The long march inland then began, and Pizarro with one hundred and seventy-seven men and three priests started off. Soon the shore was left behind. The country was level and on all sides lay fertile valleys and well-watered fields and orchards. Everywhere the natives were friendly, and, in each village they came to, the Spaniards stayed in the fortress which was built for the Emperor or Inca when he journeyed through his empire. They passed cities—but seldom could they find treasure, for news of their coming had reached the Indians, and they had hidden their gold and left their temples empty. Sometimes they met Indians who told them tales about the kingdom in the midst of the mountains. They spoke of a land where gold could be picked up like pebbles, and told of a vast lake into the depths of which each year a man was cast, a man who was first rubbed all over with oil, and then rolled in gold dust till it stood out a thumb's length. The Spaniards believed in the Golden Man, or El Dorado as they translated it, and hastened on towards this golden land.

A week passed and Pizarro found himself near the mountains. There they were met by a messenger who, in the name of the Inca, bade them welcome, and told them to march on to the Emperor's camp beyond the mountains. Pizarro thanked him for his message, gave him gifts for the Inca, and told him to go back and announce that he and his men were coming.

At last they reached the Andes, and the terrible ascent began. First came thick forests, then bare walls of rock, towering above them, and snow-capped peaks shining in the sun. The path grew narrower. Sometimes it led them across the bare mountain side, a mere ledge in



HIGH PEAKS IN THE ANDES

These tremendous snow-capped mountains run, a great wall, hundreds of miles long, down the whole of one side of South America.

a terrific rocky wall; sometimes it led them round a bend where they must lead their horses, both men and beasts pressed close to the rock, while below them gaped a mighty chasm hundreds of feet deep. A false step meant death; yet on they went, anxious only to reach the great Inca, the Child of the Sun. Not a sound was heard, except perhaps the screech of some great bird of prey hovering over the long trail of men and horses.

At length they reached the top. The cold was intense, but soon they had crossed the tableland and began to go down. Each day took them nearer to the Inca's camp. They came in sight of a city whose white-walled houses and temples gleamed in the sun. Pizarro took

possession of it, and found that a long causeway led to the camp of the Inca which he could see in the distance. At once Pizarro's brother galloped off to the Inca to tell of their arrival, and ask him to visit the Spaniards. The Inca was greatly impressed by the horsemen as they galloped up; for never before had the Indians seen horses, and at first some of them thought that rider and horse were one strange creature. The Inca greeted the Spaniards and promised to visit Pizarro next day.

At midday the Spaniards, always on the watch, saw a great procession start off from the Inca's camp. First came men who swept the path before them with long brooms, then warriors in brightly coloured dress, and in the midst of these was carried the royal litter in which the Inca sat on a throne of gold. Behind him came thousands of soldiers.

Just as the sun was setting, the procession entered the city, the Inca amidst a blaze of gold and silver, wearing the crown of Peru, a deep crimson fringe, round his forehead, and an immense collar of emeralds. Not a Spaniard was to be seen—all had stayed in the houses by Pizarro's order. Suddenly a door opened, and out stepped a Spanish priest carrying a Bible. He made a long speech to the Inca, telling him the story of the Bible, and trying to convert him; but the Inca, at the end of it, pointed to the setting sun, and said that his God still lived in the heavens, and he refused to believe in any other. Then, taking the Bible from the priest, he hurled it to the ground.

Pizarro was watching from a doorway, and as he saw what the Inca did he waved on high a long white scarf, the signal for war. At once came a roar of cannon from the fortress, a trumpet rang out, and every Spaniard rushed



A CONDOR

The great bird of prey of the Andes, so typical that it appears in Chile's coat of arms. All along Pizarro's trail these foul scavengers must have hovered, waiting to swoop upon the dying and the dead, men and horses, and the refuse of the camps.

from his hiding-place. A terrible fight took place. Pizarro carried off the Inca, a prisoner, to the palace, while his men fought desperately. At last a trumpet sounded. The fight was over; thousands of Indians had been killed, and the Spaniards galloped back to the town to await Pizarro's orders.

As the days went past, Pizarro often visited the Inca, and never tired of hearing him describe the treasures of his land. But the Inca longed for freedom, and one day, in desperation, he walked to the wall of the room, stood on tiptoe, and with his finger reached high up the wall, saying, 'If you set me free, I will fill this room with gold as high as I can reach.'

Pizarro's eyes glistened; he called for his men to mark the place on the wall, and awaited the coming of the treasure. For the next two months immense quantities of vases, jars, cups, and ornaments, all of solid gold, were carried to the treasure room by the Indians, only too eager to gain freedom for the Inca, and daily the treasure rose higher on the floor till at last it reached the mark on the wall. Some of the beautiful things were melted down into great bars of solid gold. A fifth of it was set aside for the King of Spain, and the rest was divided among the Spaniards, both those left in charge of the little coast town and those who had come with Pizarro.

The Inca had paid his ransom right generously, and now Pizarro must set him free. But rumours were reaching the Spaniards that the Inca was secretly plotting against them, and that one day soon the Indians would swoop down upon them. Pizarro's men became uneasy, for they had no chance against thousands of Indians. They demanded that the Inca should die. In vain he pleaded for his life. He had shown them nothing but friendship, he had given them freely of his treasures and would give them still more; but the army said the Inca must die. And that night, in the great Square, by the light of torches, the Inca was put to death. Next morning news came that the rumours of an Indian rising were false, but it was too late.

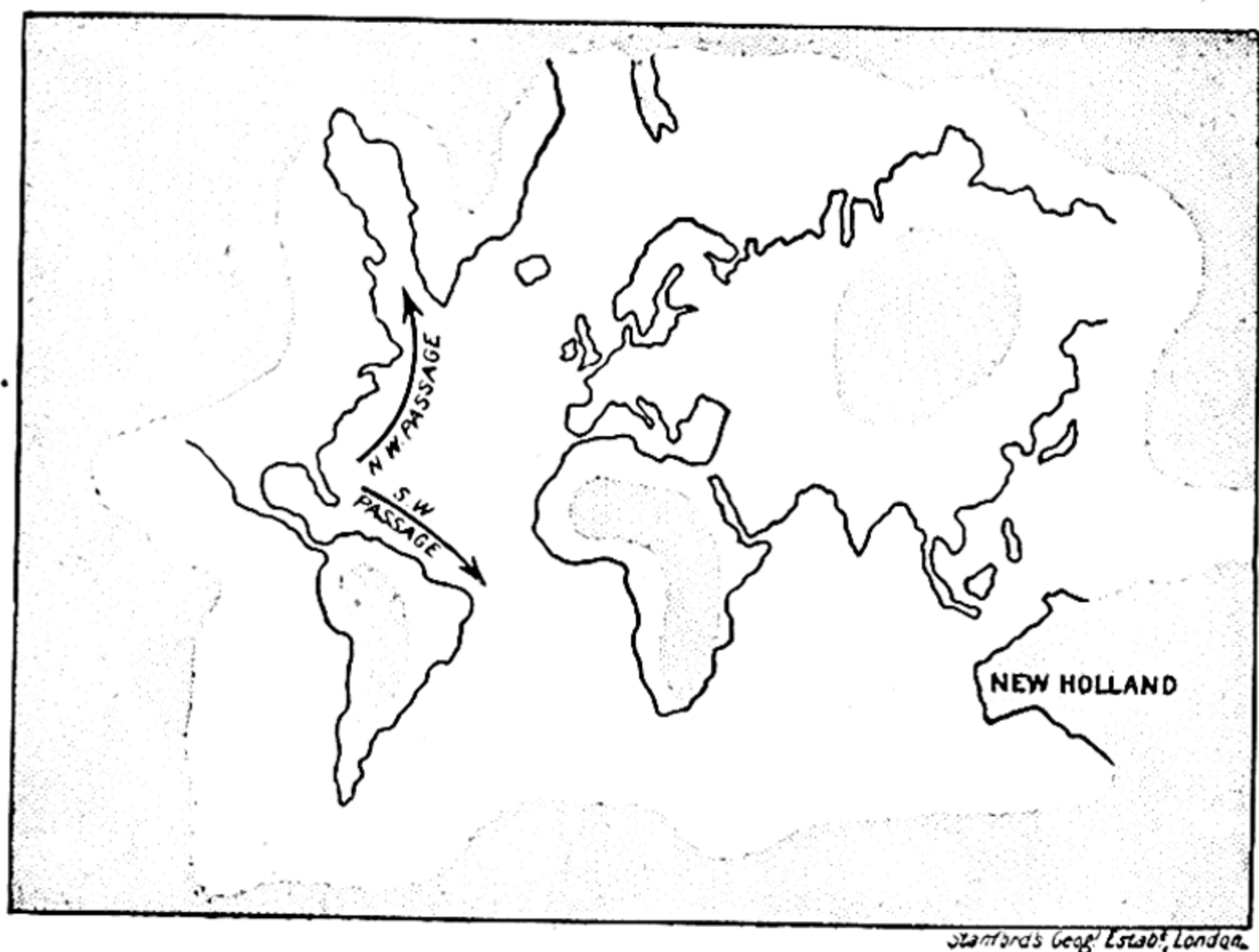
And now Pizarro set out for Cuzco, the capital. As the horsemen entered the city, the Indians fled in terror. In the centre stood the great Temple of the Sun, where everything was of gold. Near by stood a Chapel to the Moon, with walls of silver, while not far off were Chapels to the Stars and the Rainbow, all flashing with precious stones. The Spaniards rushed hither and thither seeking

for gold; the beautiful things were torn down, and the riches were piled up in the market-place. Peru was conquered. Pizarro hastened to the coast and built there a new capital of his own, Lima, and Spain rejoiced in its latest conquest.



A PERUVIAN WITH HIS LLAMA

The beast of burden of the Andes
is the llama, as is the yak
(see illustration on
p. 175) of the
Himalayas.



THE WORLD IN ELIZABETH'S REIGN

The shaded portions show parts of the world not then explored.

CHAPTER VI

THE ROAD TO THE EAST, 4

§ 1. *THE NORTH-WEST PASSAGE: MARTIN FROBISHER*

'And the sea-fog, like a ghost,
 Haunted that dreary coast,
 But onward still I sailed.'

THE cold was intense, a storm was raging, and a dense fog came down and completely hid the two little ships that were scudding over the cold waters of the north.

Only a few weeks before, they had sailed gaily down the Thames, and Queen Elizabeth herself had stood by her palace window and waved her hand to the captain, Martin Frobisher, on his way to find a new road to the East, a road by the North-West of America.

When the fog lifted, Frobisher found that he was off the

coast of Greenland. Soon he reached the desolate shores of Labrador. Ice lay everywhere as far as he could see, and not a sound broke the silence of that lonely land. Frobisher, full of hope, steered north.

Suddenly a terrific crash was heard. The men were terrified, for there, away to the north, 'a great island of ice fell one part from another, making a noyse as if a great cliffe had fallen into the sea.'

After sailing for some days they discovered an opening in the coast, and joyfully they sailed into it. Surely this was the passage which would take them through to the Pacific?—but no: it was only a long inlet, and they had to turn back.

At one part of the shore they noticed a number of natives rowing about in long, narrow boats covered with deerskin. On drawing nearer they saw that these natives had black hair, broad faces, and flat noses, and were dressed in sealskin. Five of Frobisher's men went on shore, but they were captured by the Eskimos and never seen again. Frobisher then took one of the Eskimos prisoner, and carried him off on board his ship.

Sailing was now difficult, for the ice was closing in, and Frobisher turned homeward. He was eagerly welcomed; but his treasures were few, only some skins, some pieces of black stone which sparkled in a curious way, and the Eskimo, who died soon after reaching England. Goldsmiths were called in, the black stone examined, and the report came that it contained gold. In their eagerness for riches men clamoured for a new expedition to set off, and the following year Frobisher sailed away on a second voyage.

Again he reached the inlet which was named Frobisher



ESKIMOS WITH CANOES

A woodcut of 1580.

The manner of living changes hardly at all in the Far North. Though this picture was made more than three hundred and fifty years ago, it might illustrate the life of the Eskimo of to-day. The kayak, or canoe; the toupig, or skin-tent, and the dog-drawn sledge are still found almost unchanged in the frozen lands of the North.

Bay, and soon the men were searching for the precious black stone. Their hopes were high, for they had seen spiders among the rocks and these 'as many affirme are signes of great store of gold.' They traded with the natives, who hurried to the shore when they saw the ships. For skins the sailors gave pins, bells, and other trifles, for the Eskimos 'are greatly delighted with anything that is bright or giveth a sound;' but as the weeks went on the sailors soon realized that by trading they would gain little, for 'their riches are not gold or silver but tents and boats and dogs like unto wolves,' and so, having loaded the ships with the black stones, they set sail for England. This time

the goldsmiths eagerly awaited their arrival; but, alas! they found that the stone was of little value.

Frobisher would not give up hope, however, and in 1578 he set sail a third time. Again he reached Frobisher Bay; but the fog was so dense that the sailors had to sound drums and trumpets, that the ships might not lose one another. Freezing winds blew, great mountains of ice drifted down, and snow began to fall. The ships once more turned homewards, their only treasure a load of worthless ore.

§ 2. DAVIS

SEVEN years passed, and then two little ships, *The Sunshine* and *The Moonshine*, commanded by a Devon man, John Davis, sailed away for the north-west. He, too, reached Greenland—though it seemed so lonely and forsaken that he called it Desolation. Soon he rounded Cape Farewell and sailed up the coast. The natives were friendly and exchanged furs and feathers for knives and nails. Davis then crossed the strait now called after him, and coasted up the opposite shore. For days no human beings were seen; only four white bears ‘of a monstrous bigness’ gazed out at the ship. At last Davis reached a great cape whose cliffs shone like gold. On one of the pinnacles they saw a raven, and flowers like primroses grew in a sheltered corner. Winter came on, and Davis turned back with the hopeful news that ‘a North West Passage is a matter nothing doubtful.’

A second voyage took him far up the coast of Greenland, but again ice drove him back. Davis did not lose heart, however, for a third time he set out with three ships. Two of them he left off the coast of Labrador, fishing for cod

which was plentiful there, while he sailed on to the north. Natives crowded down to the shore, and told him of a great sea in the north: 'large, very salt and blue, and of an unsearchable depth.' This must be the way!

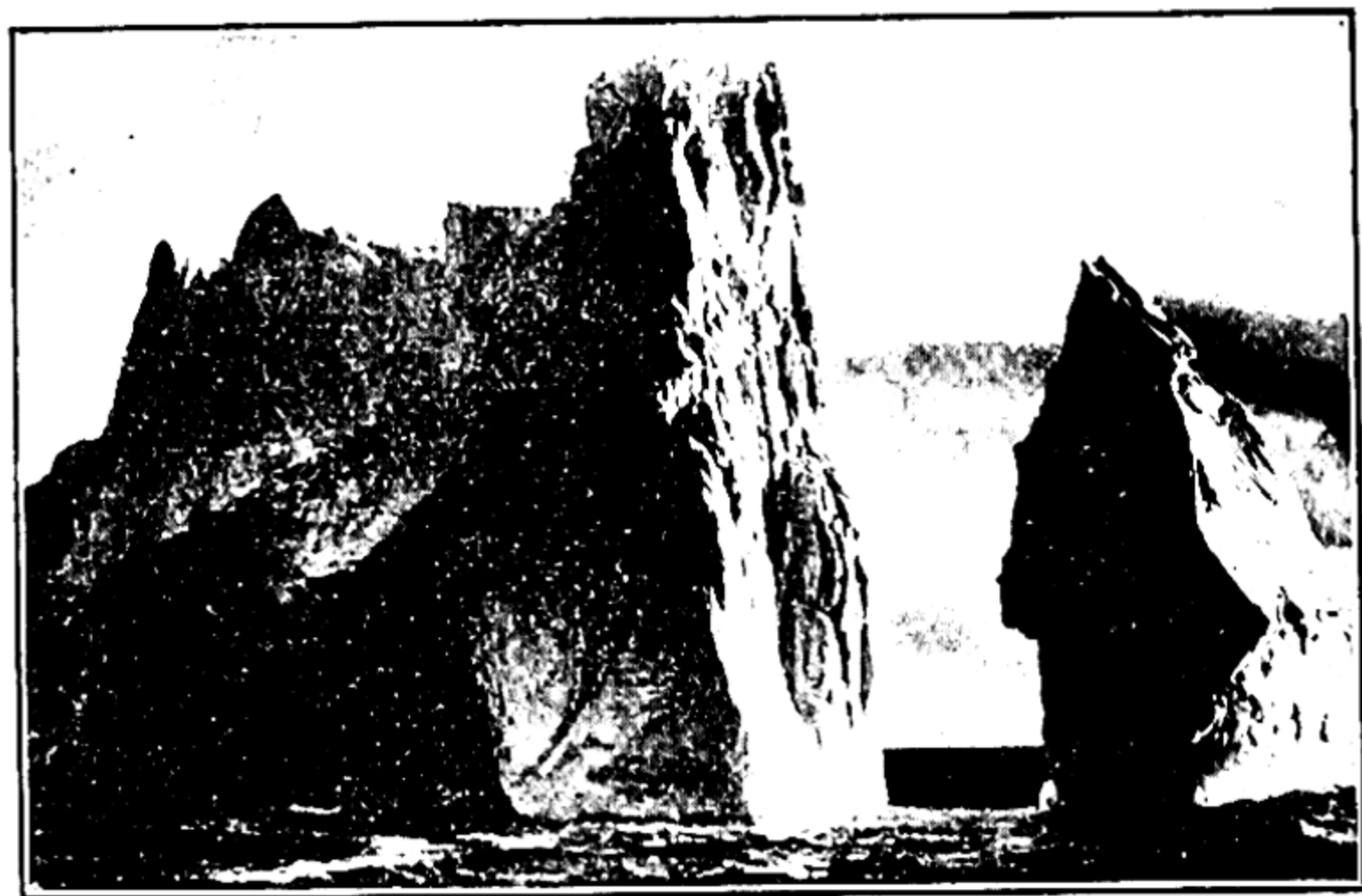
Davis was eager to be off; but that night a wind came down from the north, an icy wind that brought fog, and instead of an open sea Davis found a great barrier of ice blocking his way. The sails were frozen; there was no hope now of reaching the Pacific, and he sailed for England with cargoes of cod fish and sealskin, to tell of the seven hundred miles of Greenland coast that he had explored.

§ 3. HUDSON

STILL the search for the North-West passage went on. Henry Hudson had been a sailor all his life, and well he knew the dangers and hardships of the northern seas. Yet again and again he went back to those ice-bound shores. He had explored islands, had sailed through inlets and straits, and had found the great river, which is called after him, at the mouth of which New York now stands.

In the year 1610 he started off, accompanied by his young son, Jack, on board the *Discovery*. They left the Thames one April day, and were soon sailing north-west. As they passed Iceland they saw Mount Hecla in eruption: smoke rose above the wide fields of snow, and the red glow from the crater lit up the darkness.

Off the shores of Greenland great islands of ice floated by. On one of these the men saw a bear; but before they could reach it, the tide had carried the ice, with the bear on it, far beyond them. Sailing west through Hudson Strait they kept the southern shore in sight, and soon



ICEBERGS IN THE NORTHERN SEAS

Mountains of ice broken off from the glaciers of the Far North, and a menace to ships that cross their path. Only one-ninth of an iceberg is above the water—the rest you cannot see, a hidden danger.

reached the great Bay which is called after Hudson. The search for the passage through began; but as they sailed on to the south, they realized that they were in a vast bay, and as it was now November they had to stay there for the winter. They were soon frozen in completely, and months of storm and darkness lay before them. Food was scarce, the cold was intense, and no sound broke the silence of that ice-bound coast. Luckily the men managed to shoot some birds—'partridges as white as milk'—but as the winter went on these became more scarce. In the early spring a solitary native came down to the ship. On his sledge were the skins of deer and beaver, and these he bartered for a knife and a looking-glass. He made signs that he would come back, but the men never saw him again.

The months went on, the ice began to break, and by June the men were preparing to set sail. They had bread

for only fourteen days, yet Hudson was determined to push on. 'Come men,' said he, 'we will start again, for the passage is near at hand.'

His sailors would not listen to him; their only desire now was to leave that desolate shore and return home. Hudson had to give in. The men were worn out with suffering; even the sound of the ice breaking terrified them, and certain of them began to grumble and lay all the blame for their hardships on Hudson. Soon they were plotting and planning against him, and one morning, as he came out of his cabin, they seized him and bound his arms. Then they lowered him into a little open boat and, beside him, they put his son, Jack, and the sick men among the crew—nine men altogether, most of them ill and helpless. Some powder and shot and an iron pot of meal were also lowered into the boat. Then, as if anxious to get away from the scene, they cast her adrift and hastily sailed off. Nothing more was heard of Hudson or the little boat. They drifted away helpless and alone amid the never-ending ice.

After a terrible voyage the *Discovery* reached England, carrying with it Hudson's maps and the log-book; but Hudson himself they had left to perish in the great bay which was named after him.

§ 4. FRANKLIN

'O the long and dreary Winter!
O the cold and cruel Winter!
Ever thicker, thicker, thicker
Froze the ice on lake and river,
Ever deeper, deeper, deeper
Fell the snow o'er all the landscape.'

MORE than two hundred years later a little company of men was travelling over the frozen land of Northern

Canada. The leader of the expedition was John Franklin, and he had started from Hudson Bay to explore the Arctic coast. The party went down rivers and across lakes in canoes. Often they came to rapids, and there the men had to unload the boats and carry both them and the provisions till they could sail again. Once, as Franklin was trying to force a canoe up the rapids, he slipped and was caught in the rushing water, and swept away. Luckily he seized a willow branch farther down the river, and held on to it till his men rescued him.

Then they left the rivers and lakes behind, and over miles and miles of icy ground they journeyed by sledge. Food was scarce, and a bitter wind swept over the frozen land, but at last the settlement at Lake Athabasca was reached, and the men were thankful to stay there for the winter.

When spring came, they set off again. Down the Great Slave River they sailed till they reached Great Slave Lake, and from there they journeyed on to the Yellow River, where they were joined by a number of Indians. At last they came to Winter Lake, and there, only half-way to the Arctic Coast, they had to stay for another winter.

On the edge of Winter Lake they built a house which they called Fort Enterprise, and they lived there through the long cold months till spring came and they could set off once more. Before leaving Fort Enterprise they asked an Indian Chief to put a supply of food in the house, so that it might be waiting for them when they returned from the coast.

Soon Fort Enterprise was left behind, and again they pushed on, down rivers, across lakes, and over miles of

frozen land, till the Copper Mine River was reached. Sometimes the ground was covered with deep soft snow which made walking difficult, sometimes their shoes were torn by sharp ice, and always they were tormented by clouds of mosquitoes.

At last, however, they came in sight of the shore, and joyfully they looked north at the great Arctic Ocean. They coasted eastward for five hundred miles, giving names to bays and headlands as they sailed along the lonely coast, whose high rocky cliffs and great fringe of ice were a constant danger to their light canoes. At length autumn came and they dared not go farther. The point at which they turned was called Point Turnagain, and from there they made their way back to Fort Enterprise by land, hoping that by doing so they might shoot some game on the way, for food was scarce.

Great was their disappointment; for the ground was frozen, a terrific gale blew, and their canoes had to be carried, as all the rivers were ice-bound. Their provisions were finished, and they were forced to eat the bones and horns of a dead reindeer they found. As the days went on, scraps of leather and old shoes were their only food, and the men grew weaker. Progress became more and more difficult, and only what was absolutely necessary was carried with them; everything else had to be left behind, for they needed all their strength to make any headway at all.

Their one hope was to reach Fort Enterprise, and only the thought of the food waiting there helped them to keep on. After terrible suffering they at length reached the Fort—to find it deserted. Not a trapper, not an Indian was to be seen, and not a scrap of food. There was no sign of life, and the men, worn out and in despair, crawled into



REINDEER CROSSING A RIVER

They are always on the move, as the melting snows yield up fresh places where they may feed.

the hut and lay down. The cold was intense; so swollen were their limbs that they were quite unable to walk. One day a herd of reindeer, in search of food, came quite close to the hut; but the explorers were so helpless that they could do nothing, and the deer passed on.

The end seemed near; only four men were left. Suddenly, one morning, three Indian trappers arrived. They soon brought fish and game to the sufferers, and the thought that they were now safe helped them to recover almost as much as did the food. The Indians for the next few weeks looked after them until they were able to start on their journey once more. At length they reached Hudson Bay, and returned to England.

Franklin, still anxious to explore more of the Arctic Coast, again set out, and again made the journey across Canada by canoe and sledge till he and his men reached Great Bear Lake. There a hut was built which was called Fort Franklin, and there Franklin left a small band

of men while he with a few others hurried on, eager to reach the coast. They sailed down the wide and swift Mackenzie River in a little boat, twenty-six feet long, which, with two others, had been brought out from England, and before long they saw the open sea. 'Seals and black-and-white whales were sporting on its waves' As they stood at last on the wild Arctic Coast Franklin unfurled a Union Jack, and let it wave in the wind of the Northern Sea. He then went back to Great Bear Lake, and spent the winter there.

By the month of June they were ready to set off, and down the Great Mackenzie River they sailed in their little English boats, till they reached its mouth. There the party divided, and one company went east, exploring the coast, while Franklin sailed west. No sooner had he left the river mouth than he came to a settlement of over three hundred Eskimos, who rowed about in their kayaks in great excitement at seeing the white men.

They did not stay long with the Eskimos, however, for they were anxious to go on. Sometimes they passed broad river mouths, sometimes great masses of ice drifted by, or a dense fog came down, making sailing difficult; but on they went along that desolate shore. They were tormented by mosquitoes even when the cold Arctic wind blew its hardest, and nowhere could they find shelter. Half-way to Icy Cape, the cape round which lay the long-looked-for road to the east, winter set in, fogs came down, and Franklin, knowing the dangers of an Arctic winter, turned back so that he might reach Great Bear Lake in safety. Only a hundred miles from Icy Cape, a ship, which had come from the Pacific, was waiting to greet Franklin, but he did not know.

Nearly twenty years later, in 1845, Franklin again set off from England. Full of hope, he sailed away with two ships, the *Erebus* and the *Terror*, and a supply of provisions to last for several years. 'Have a letter waiting for me at Panama next January—I say we shall get through the North West passage this year,' he said to a friend before he left. They reached the shores of Greenland, sailed north to Baffin Bay, and then crossed to Lancaster Sound—but after that nothing more was heard of them.

Many ships went out in search of Franklin, but no trace of him was found. It seemed impossible that he and his men should have disappeared so completely. At last Lady Franklin equipped a small steam yacht, called the *Fox*, which, with Captain M'Clintock in command, sailed away. Captain M'Clintock was determined to solve the mystery.

Away to the north-west sailed the *Fox*, and up the coast of Greenland. There winter came on, and they had to stay. As soon as the ice began to melt they went on, and were soon through Lancaster Sound. By August they had reached an island on which they landed, hoping that they might find something to tell them of Franklin—and on the shore they found the graves of three English sailors, three of Franklin's men. They were on the right track, and hopefully they went on; but soon another winter was upon them, and again they were imprisoned amidst the ice and snow.

One day, as they were sledging along the shore, they saw some Eskimos in the distance. When they drew nearer the sailors noticed that one of the Eskimos was wearing a naval button. They eagerly questioned him, and were told that it had belonged to some white people who had passed that way some time before. The sailors were greatly excited, and

at once they sledged to an Eskimo village some miles away. There the Eskimos brought them silver spoons, knives, and buttons which the men recognized as belonging to Franklin and his men. One old Eskimo said that he had heard of a ship with three masts being crushed by the ice to the west of King William's Island. He said it was a long journey to the spot. Undaunted, the Englishmen hurried back to the ship and prepared for a long sledge journey, certain now of finding the end of Franklin's story.

A band of men set out by sledge, and after some weeks' journey over the ice they reached a little Eskimo village. Here they saw pieces of silver plate, and silver forks and spoons belonging to Franklin; and here also they learned that both ships had been destroyed some distance away, and that the few white men who had still been alive had set off for the mainland dragging a little boat with them.

M'Clintock and his men went on, and at length reached the end of their quest. On the shore of King William's Island they found a pile of stones, and under them a tattered piece of paper on which was written the story of the expedition. It told of reaching Lancaster Sound, of wintering amid the ice, of the death of Franklin at King William's Island, of leaving the wrecked ships, and then—the last entry of all—'And start on to-morrow, twenty sixth, for Back's Fish River.'

M'Clintock set out for the river, but he did not reach it; for on the way he found a boat, mounted on a sledge, ready for the voyage home. Near by lay the bones of those who had hoped to journey by her. They too, like Franklin, had perished on the Arctic shores—but Lancaster Sound, the North-West Passage, had been found.



A SEVENTEENTH-CENTURY PICTURE OF NORTH AMERICA
In the background are the Niagara Falls. The activities of the beavers are not greatly exaggerated.

CHAPTER VII

NORTH AMERICA

§ 1. CARTIER

IN the little town of St. Malo, whose walls jut out towards the stormy Atlantic, lived a boy called Jacques Cartier. He grew up to be so brave and skilful a seaman

that the King of France chose him to command the ships which he was sending to North America on a voyage of discovery.

On the 20th of April 1534 Cartier set sail, and, to his joy, twenty days of good weather took him across the Atlantic to the mysterious lands beyond. It was, though, a disappointing and depressing country that he had reached—wild, bleak, and cold. ‘Here,’ said Cartier, ‘is Cain’s portion of the Earth.’

But as they sailed on, a channel opened wide before them, and their spirits rose. This channel, they thought, would surely bring them to the seas that washed the shores of China. The land on either hand seemed to Cartier ‘exceedingly pleasant.’ Instead of ice and rock there were trees and shrubs, birds and flowers. Farther on they came to a headland standing high above the water, and Cartier determined to land on it, although he had seen natives on the shore—red-skinned men, with feathers in their hair and bows in their hands.

On the top of the headland the French sailors put up a cross thirty feet high, and on the cross were the words ‘Long live the King of France.’ As they were putting up the cross some natives came towards them, looking sullenly and suspiciously at the white men. Cartier, to make friends, gave them presents of knives and beads, which so pleased them that two of the young natives came on board Cartier’s ship. Cartier was delighted, and determined not to let them go but to take them back to the King of France. Soon the weather changed and became stormy, and the Frenchmen sailed back to their own country to tell what they had seen, and to show the two Red Indians whom they had carried off.

Six months later Cartier set sail again; but this time he did not cross the Atlantic so easily, for the weather was bad and he met both storm and fog. On the 10th of August, the feast of St. Lawrence, he reached the wide channel up which he had sailed before, and this he called after the saint whose day it was. Soon Cartier found that this channel was not an arm of the sea but a huge river—the river we still call the Saint Lawrence. Cartier sailed up until he saw before him some canoes with Red Indians on board. He asked the two young natives whom he had brought back with him, and who, during their six months' stay in France,

A NORTH AMERICAN
'INDIAN'

From a seventeenth-century
water-colour.



had learned to speak French, if they would act as interpreter between him and these Red Indians. The Red Indians in the boat were greatly impressed by these two young men, who no longer wore native dress but crimson doublets and long striped hose.

Cartier found that the Indians who lived along the shores of the St. Lawrence were friendly. He landed at one village and was met by the king, who wore upon his head a crown made of the skins of hedgehogs, dyed red. This crown he took off and put upon Cartier's head.

Some of the Indians were afraid of the French, and wished to prevent their going farther up the river. They told Cartier stories of the terrible cold of winter, of the deep snow and keen frost which, they said, would kill any stranger who tried to spend a winter in their country. Others tried to frighten the French by dressing themselves in the skins of black and white dogs, painting their faces black and tying long horns on their heads—but the French only laughed, and sailed up the river.

At last Cartier reached a part of the river which was especially beautiful. Above the valley rose a hill up which he climbed, and this hill he called 'Mont Réal', the Royal Mountain.

On the shore below, Cartier and his men built a fort and prepared to spend the winter. But the Red Indians who had tried to frighten him had told the truth when they spoke of snow and ice and of cold that killed those who were not used to it. To make matters worse there broke out a terrible disease called scurvy, which attacks people who do not have fresh fruit or vegetables to eat. 'We were obliged,' said Cartier, 'to bury such as died, under the snow, as the ground was frozen quite hard.' At last a Red

Indian told them of a tree whose juice would cure their disease. The French ran out of the fort carrying their axes, cut down the tree, and drank the sap. In six days all the juice had been drunk—and all the French had been cured.

As soon as the ice had melted Cartier sailed back to France, carrying with him a number of natives whom he had kidnapped, and a number of stories about the country he had left unexplored—how a little farther west lay a land rich in gold and rubies, farther yet a race who lived without any food, and, farthest of all, a land where each man had only one leg. But although Cartier sailed twice more to Canada he never saw these strange countries, and at last he returned to his native town of St. Malo, to spend there the closing years of his life.

§ 2. *SAMUEL DE CHAMPLAIN: 'THE FATHER OF NEW FRANCE'*

MANY Frenchmen followed Cartier across the Atlantic; some went to fish, some to hunt, others were brave and devoted priests who wished to convert the Red Indians to Christianity. These missionaries went among the most savage tribes, teaching and preaching. Many of them were tortured to death; but some came home with stories of the country they had seen, a country of forests and rivers, of scalp-hunters and cannibals. For a hundred years after Cartier had set up his cross high above the St. Lawrence, this was all that was known of Canada.

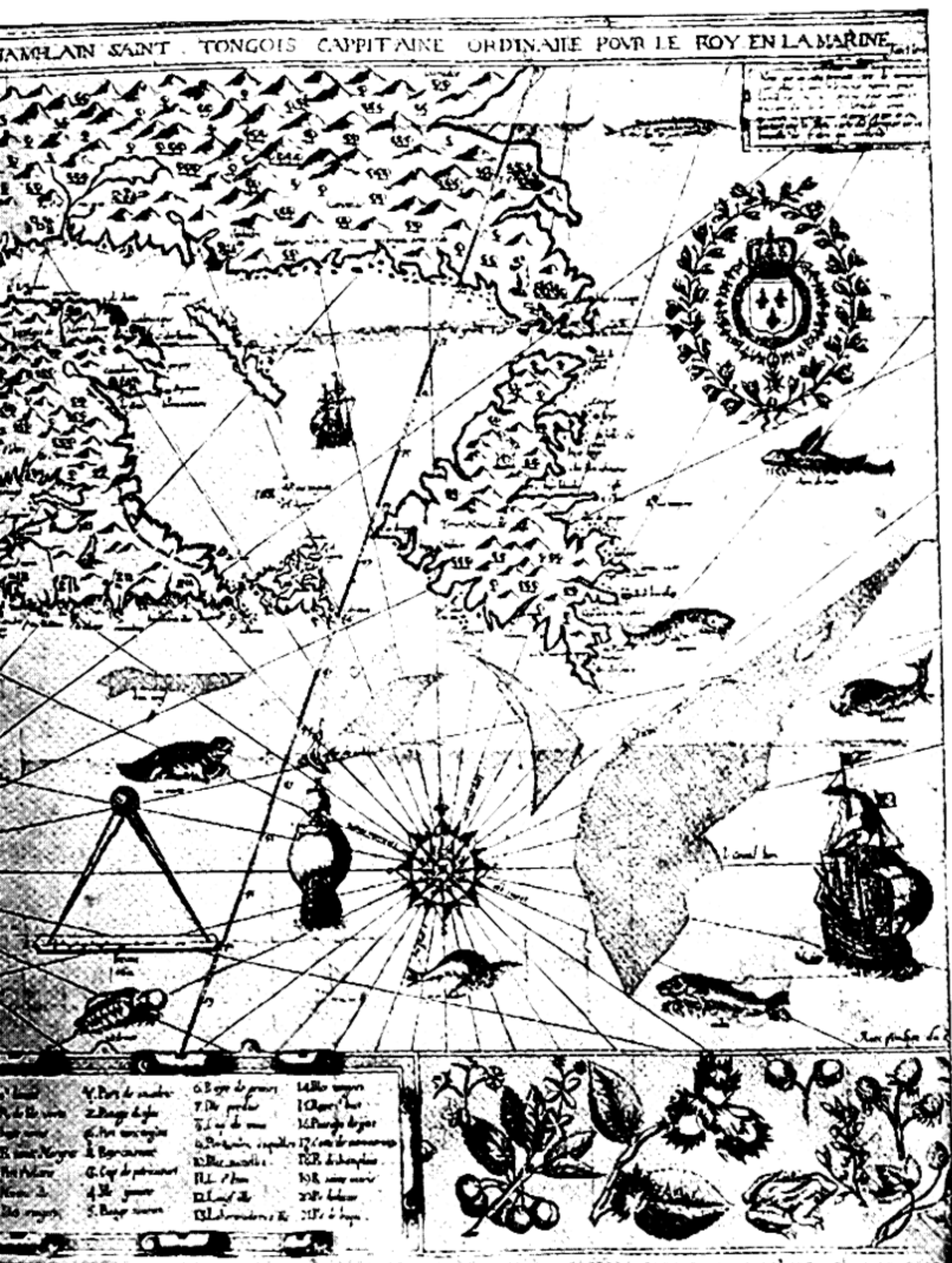
At last a brave adventurer, Samuel de Champlain, of whom it has been said that 'Rest was a penance to him,' made up his mind that he would try to explore this wild and dangerous country. He hoped, too, to found some



SAMUEL DE CHAMPLAIN'S MAP OF NEW FRANCE

settlement that would give to the French a base from which they could explore farther and farther inland.

On a spring day Champlain set sail from France, to go as far as he could up the St. Lawrence. Up he went till the river narrowed to a mile in breadth. This place was called



Dedicated to Henry IV. Dated 1612.

by the Red Indians 'Quebec'—'The Straits'—and here on the shore Champlain and his men landed. They set to work to cut down trees and make planks, which they nailed together to form houses, and round the little new town they built a palisade, and placed beside it guns from



RED INDIAN 'BRAVES'

Though they are no longer warriors, they love sometimes to put on the war-paint and feathers, and to dance a war dance to remind themselves of the grim past.

the ship. This was in the year 1608, and for twenty-seven years Champlain lived in Quebec, exploring the country round, and looking for some westward route that would make Quebec 'the gateway of the Golden East.'

Once the natives told Champlain of a river that flowed into the St. Lawrence from a large and beautiful lake, and declared they would take him with them on their next visit to it. Champlain willingly agreed to go, and set off with two French companions and a large band of Red Indians. These Red Indians belonged to the Huron tribe, which was friendly to the French, and they were a war-party which wished to visit the lake in order to raid the villages of their enemies the Mohawks.

They pushed off their canoes and paddled southwards up a river to which Champlain gave the name of 'The Richelieu River,' after one of the rulers of France. When

the river broadened out into the lake which is now called Lake Champlain, the Indians only paddled by night, and by day lay concealed in the depths of the forest. One evening they saw on the shore a large body of their enemies. A terrific fight took place between the two tribes of Red Indians; but in spite of their horrible war-whoops, and their arrow-proof armour, the Mohawks ran away from the three steel-clad Frenchmen with their fire-breathing weapons. After their victory the Hurons decided that they had done enough, and hurried back to the Richelieu River, and to safety.

The next great journey which Champlain undertook led him up the Ottawa River. The only natives he met on the first part of the journey were friendly, and told him of a great freshwater lake not far away. So Champlain went on till he reached the shores of the lake called, from the tribes who lived near it, 'Lake Huron.' Some of the friendly Indians accompanied Champlain, who, on Lake Ontario which he next reached, found himself in a land of savages who hated the Hurons and their friends the French. These savages lay in wait for the white man, and a battle followed. Twice over Champlain was wounded, and at last had to be carried off to safety on the back of a Huron. 'Bundled in a heap, doubled and strapped together . . . I never was in such torment in my life,' wrote Champlain; 'for the pain of the wound was nothing to that of being bound and pinioned on the back of one of our savages.'

All winter Champlain remained among the Hurons, recovering from his wound, hunting and making friends, till summer came again and he could return to his City of Quebec, with its hundred and five inhabitants. And there,

in the capital city of the New France he had founded, after twenty-seven years of exploration and of toil, Samuel de Champlain died.

§ 3. LA SALLE

'Follow the river and you will find the sea.'

ROBERT CAVELIER DE LA SALLE received an education which was intended to fit him for the career of schoolmaster; but the idea did not please him and, instead, in 1666, he went to Canada to seek his fortune.

In a little village he set up a trading-post, and to it came Red Indians whose strange customs interested him. So that he might talk to them, he set to work to learn all the Red Indian languages he could, and succeeded in mastering eight.

Sometimes these Red Indians would tell him stories, and one of these stories was of a great river which rose not far away and flowed to a distant sea. That distant sea, thought La Salle, must be the Pacific, and down that river, if only he could find it, ships might float till, crossing the ocean, they reached China and its treasures. So he gathered together a number of Frenchmen, hired some natives to act as guides, and set off. Food was scanty, and they lived chiefly on Indian corn and fish; but sometimes a friendly tribe would ask them to a banquet where they would feast on pumpkins and berries and dog-flesh.

When La Salle arrived on the shores of Lake Ontario, he found that the natives there were not at all friendly. They would tell him nothing about the river he was looking for and would give him no guides. Moreover, they were horrible cannibals who tortured and murdered their prisoners, and La Salle was glad to make his escape from them.

At last he got news of his river—the river we call the Ohio—and he made his way across the forest to sail down it. But his French friends were missionaries, who turned aside to preach and found mission stations on the Great



A 'PORTAGE'

Those who travel by canoe along the rushing streams of Canada must still take their craft overland, from time to time, to avoid the rapids.

Lakes, and his Indian guides deserted him; so, as he could go no farther, he had to make his way back alone.

La Salle spoke the native languages so well and was so good a hunter that he decided not to go right back to Quebec; instead, he explored Lakes Erie, Huron, and Michigan. On his journey he heard of another river

which flowed to a great ocean. This river, the Illinois, flowed, he learned, not to the west, but to the south, and La Salle now began to realize that both the rivers, Ohio and Illinois, might flow into the Gulf of Mexico but could not reach the Pacific. Some of the people who knew him, and who had always laughed at his ideas, began to call his settlement on the St. Lawrence 'La Chine'—'China'—to suggest that that was the only China he was likely to reach. The 'La Chine Rapids' are shown on our maps at the present day.

Although La Salle was disappointed in his hopes of discovering a river route from the Atlantic to the Pacific, he determined to find out all he could of the wonderful lands to the south of Canada, and the best way of doing this seemed to be to sail down the river Illinois.

The expedition was such a difficult one and would take such a long time that La Salle had to make very careful preparations. He made Niagara his starting-point, and to it he sent his stores. To protect the stores he set to work to build sheds and storehouses; but so hard was the frost that his men had to build fires and thaw the ground before they could drive stakes into it.

When the ice melted in spring, La Salle and his men set off again by the Great Lakes till they reached the path that led to the Illinois River. There they landed and carried their canoes through the woods. But his followers were quarrelsome and discontented. As La Salle was leading his men down a narrow path one raised his gun to shoot him, when another, more faithful, struck up the gun and saved the leader's life.

The first stream which seemed to La Salle to flow in the right direction was a brook, so narrow that a man could

stand with a leg on either bank; but soon it widened and the canoes were launched. Southwards the current carried them, through swamps and woods, till the stream became a river. In a few days the scenery changed, and wide grassy prairies stretched on either hand, where the Frenchmen could see the ashes of fires made by Red Indian hunters and the bones of the buffaloes they had killed.

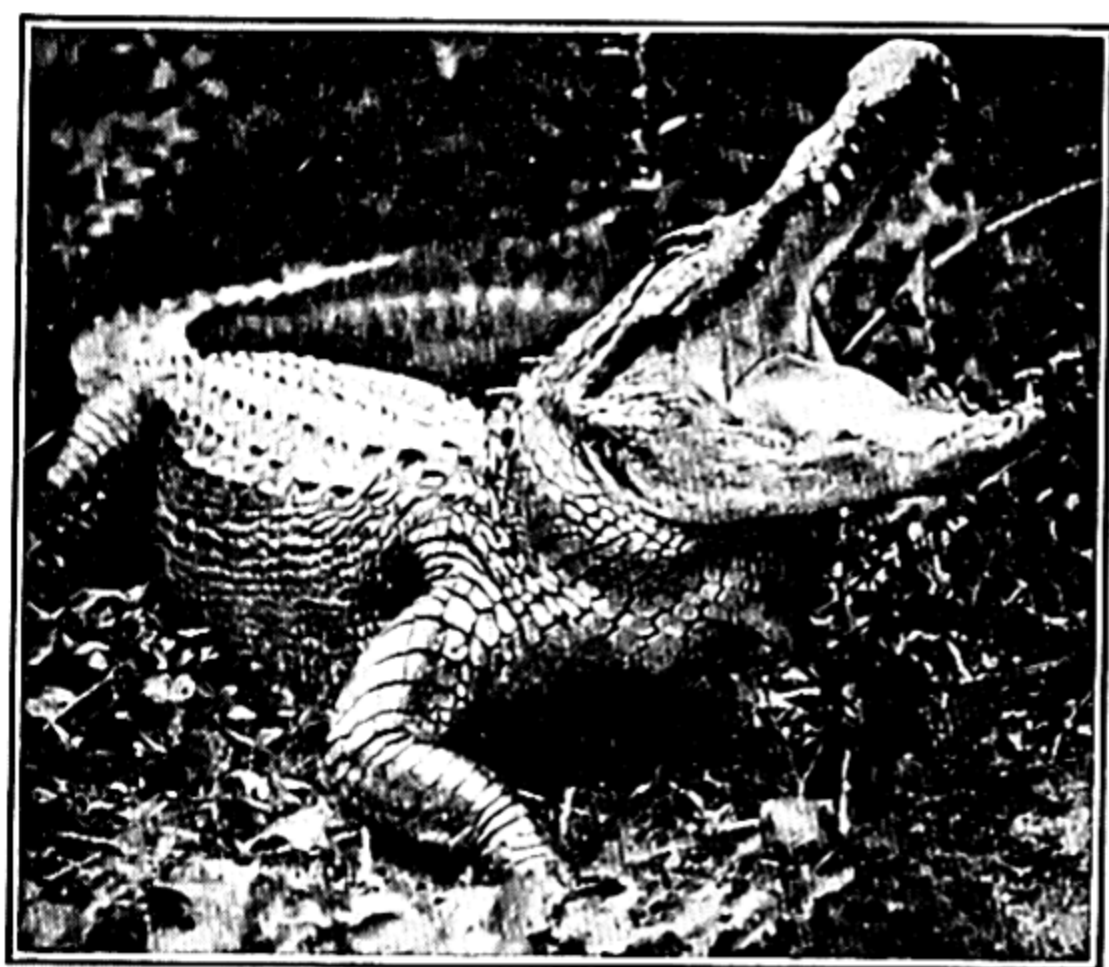
As they floated down-stream, a village came in sight, but the Red Indians in it were unfriendly and picked up their bows and arrows to shoot the white men. It looked as if the explorer and his followers would all be killed. When, however, the Red Indians saw that La Salle showed no sign of fear, they dropped their weapons and invited the Frenchmen to a feast. La Salle had to make a lengthy speech, and his knowledge of their language so pleased the Indians that, as a special sign of friendship, they rubbed his feet with bears' grease.

Many of La Salle's men were determined to go no farther, and when the leader woke next morning he found that a number had deserted. Those who were left were treacherous, too, and some even tried to poison him. The expedition was hopeless, and La Salle had to turn back.

La Salle's friends admired his courage and determination, and they gave him money to try once more. This time he and his men made their way across country in the middle of winter, dragging their canoes on sledges. Soon after they had reached the village at which La Salle had had to turn back, the thaw began, and the canoes were unlashd from the sledges and launched on the river. As they drifted farther and farther south the weather became warmer, flowers and leaves began to appear, and at last

they came to great swamps where lived huge alligators. Now there appeared great expanses of sugar cane, and soon the water became brackish, then salt, and at last they floated out on to the sea. La Salle had triumphed—he had sailed down the Mississippi, two thousand miles, and had reached the Gulf of Mexico.

The French were longing to get back to their own country, to tell of their success and of the great new lands



AN ALLIGATOR

Dreaded monster of the American swamps.

which La Salle had named Louisiana in honour of King Louis of France. But they could not sail across the Atlantic in canoes; they had to return northwards to Canada.

The journey back was a weary one: the canoes had to be paddled against the current, food ran short till there was little to eat but the flesh of alligators, the natives were hostile and frequently attacked the little party; and, worst of all, La Salle himself became dangerously ill. Instead of hurrying back to Canada and thence to France, he was forced to spend a long and dreary winter in the land of the Illinois, in a little settlement called 'Starved Rock' on the top of a high cliff which the Red Indians had fortified.

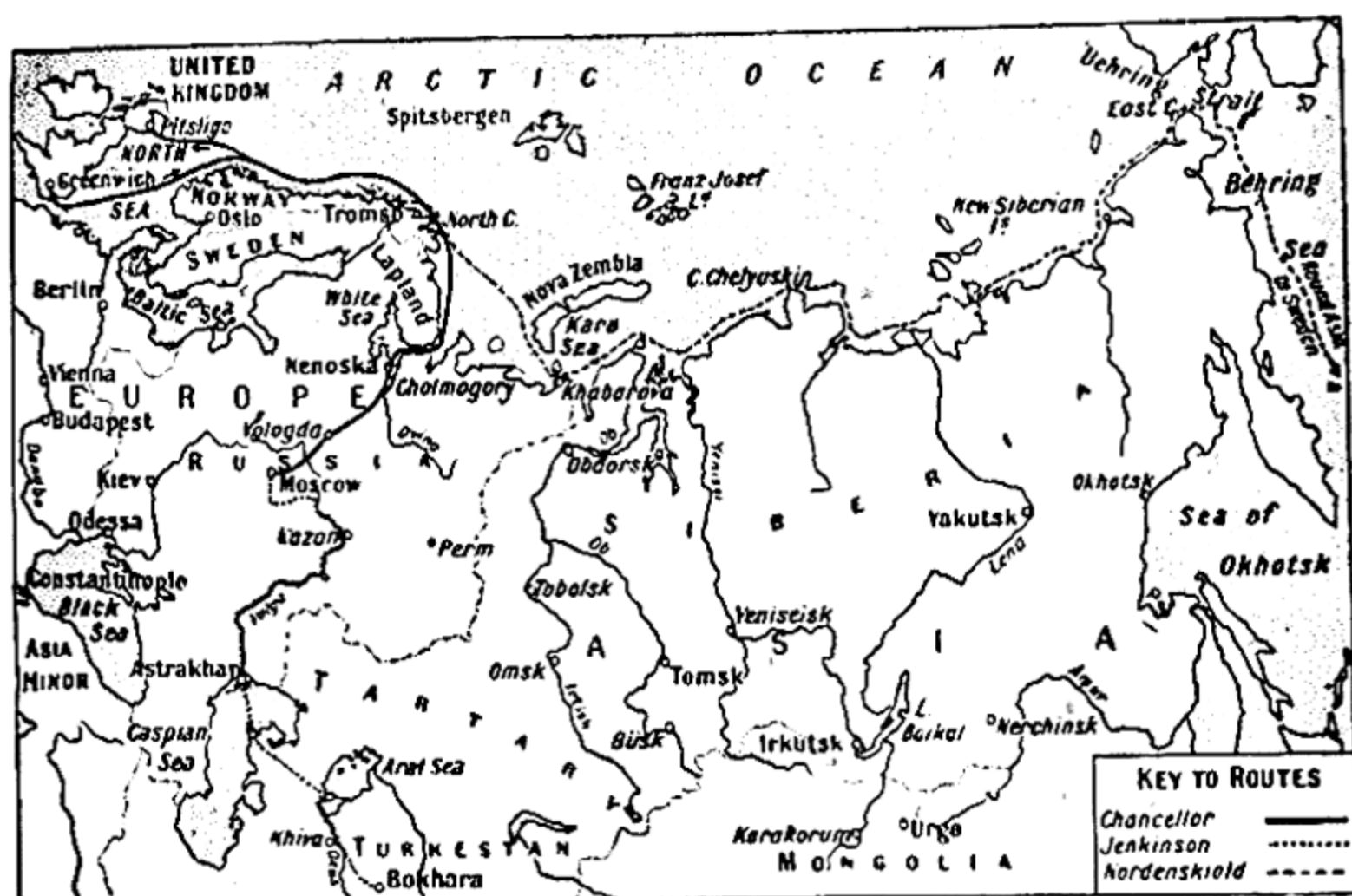
It was nearly two years after his voyage down the Mississippi before La Salle could return to France to tell the King his great news.

King Louis honoured the explorer; but La Salle would not settle down to a peaceful and an easy life. Instead, he persuaded the King to give him ships and money for a new expedition. This time he planned that he should sail to the Gulf of Mexico, find the mouth of the Mississippi, and found a colony there—in that part of North America we still call 'Louisiana.'

One summer day La Salle set sail with four ships, a number of men and women who were to form the new colony, and a quantity of stores, and the expedition reached the Gulf of Mexico early in 1685. But the coast near the mouth of the Mississippi is low-lying and swampy, there are many lagoons and channels, and mists are frequent, so that La Salle sailed past the mouth of the river without knowing it. At last he thought he recognized the river-mouth, and determined to land. One of his ships ran aground, and though the men were saved the vessel was lost. The land was flat, muddy, foggy, and depressing, the food was poor—brackish water, shell fish, and hard bread—and some of the colonists died from snake-bite, others from fever.

La Salle was undaunted. He set off on foot with twenty picked men to explore the neighbouring country. Three days later he and eight men returned. Four of the party had deserted, one had been killed by an alligator, and the others had wandered away and been lost.

Then came news that seemed to destroy the last hope of the little colony—news of the wreck of their remaining ship, and with it their stores. La Salle determined to try to reach Canada. It was the last chance of obtaining help.



CHAPTER VIII

THE NORTH-EAST PASSAGE

‘The Tartars of the Oxus, the King’s guard,
First, with black sheep-skin caps and with long spears;
Large men, large steeds; who from Bokhara come.’

§ I. CHANCELLOR

IT was a summer day in the year 1553. Crowds of people lined the shore of the Thames at Greenwich. From every near-by window looked eager faces.

The gaily dressed ladies and gentlemen of the Court walked up and down before the Palace, for the Court was at Greenwich and all the nobility were there.

Suddenly amidst the talking and laughter there came a hush. All eyes sought the river, and, as they looked, out of the haze came three vessels. A shout went up, and the mariners in their sky-blue uniforms cheered till the sky rang with the noise. As the ships sailed proudly by, flying the flag of England, the people on shore waved and shouted

until the vessels disappeared in the distance. Never had Greenwich seen such a splendid sight.

This voyage was the outcome of a great many meetings of merchants who had seen how Spain and Portugal were growing rich, and who had wondered how England, too, could join in the great race for wealth. At these meetings the merchants listened eagerly to an old man whose advice they took gladly; for he was Sebastian Cabot, one of the greatest explorers of that day. In a great room, richly furnished, Cabot would tell that Company of Merchant Adventurers (for so they were called) of his plans for increasing the trade of England. Too old to go himself, he was eager to give them help in their attempt to reach Cathay or the Spice Islands by the north-east.

Soon the vessels left the Thames behind, and away they sped across the North Sea until at length the shores of Norway came in sight. As they skirted the coast a terrible storm came on. The wind howled round the masts, the waves beat against the sides of the ships, but the three vessels kept bravely on. Every man was at his post as the Captain-General of the Expedition, Sir Hugh Willoughby, shouted through the gale to Richard Chancellor, the Captain of another ship, to keep close to him and not let the ships lose sight of one another. His words were lost in the raging tempest, however, and the waves, lashing against the ships, soon drove them apart. Next morning Sir Hugh Willoughby could see no trace of Chancellor's ship.

Northward the two remaining vessels sailed, driven by gales till they reached the shores of Nova Zembla. Fearing he had come out of his way, Willoughby again set sail, and found the mainland of Lapland. There he rested; but

winter overtook him, and soon he was frozen in and was forced to stay. Time after time he sent his men ashore to seek for help, but always they returned without having seen any one. Food ran short, the cold was intense, and the darkness of an Arctic winter came down upon them. Month after month of darkness passed, blizzards raged, and hope of rescue gradually died in the hearts of the sailors. Some years later the remains of the ships were found—in that lonely land had perished many of the men who had so gaily sailed down the Thames that summer day.

Meanwhile Richard Chancellor had found himself alone. He steered for a harbour where the captains had arranged to meet should they lose sight of one another. There he waited for the arrival of the others; but when seven days had passed and there was no sign of them, he sailed on alone. After many days he came to a sea 'where he found no night at all,' and having sailed through this for several days he at last anchored his ship in a great bay. He had rounded the North Cape, entered the White Sea, and was now on the northern shores of Russia, or Muscovy as it was then called.

The sailors were overjoyed to see some fishermen in the distance; the fishermen, too, were eager to trade with the sailors, but dared not do so without the consent of their Emperor, Ivan Vasiliwich,



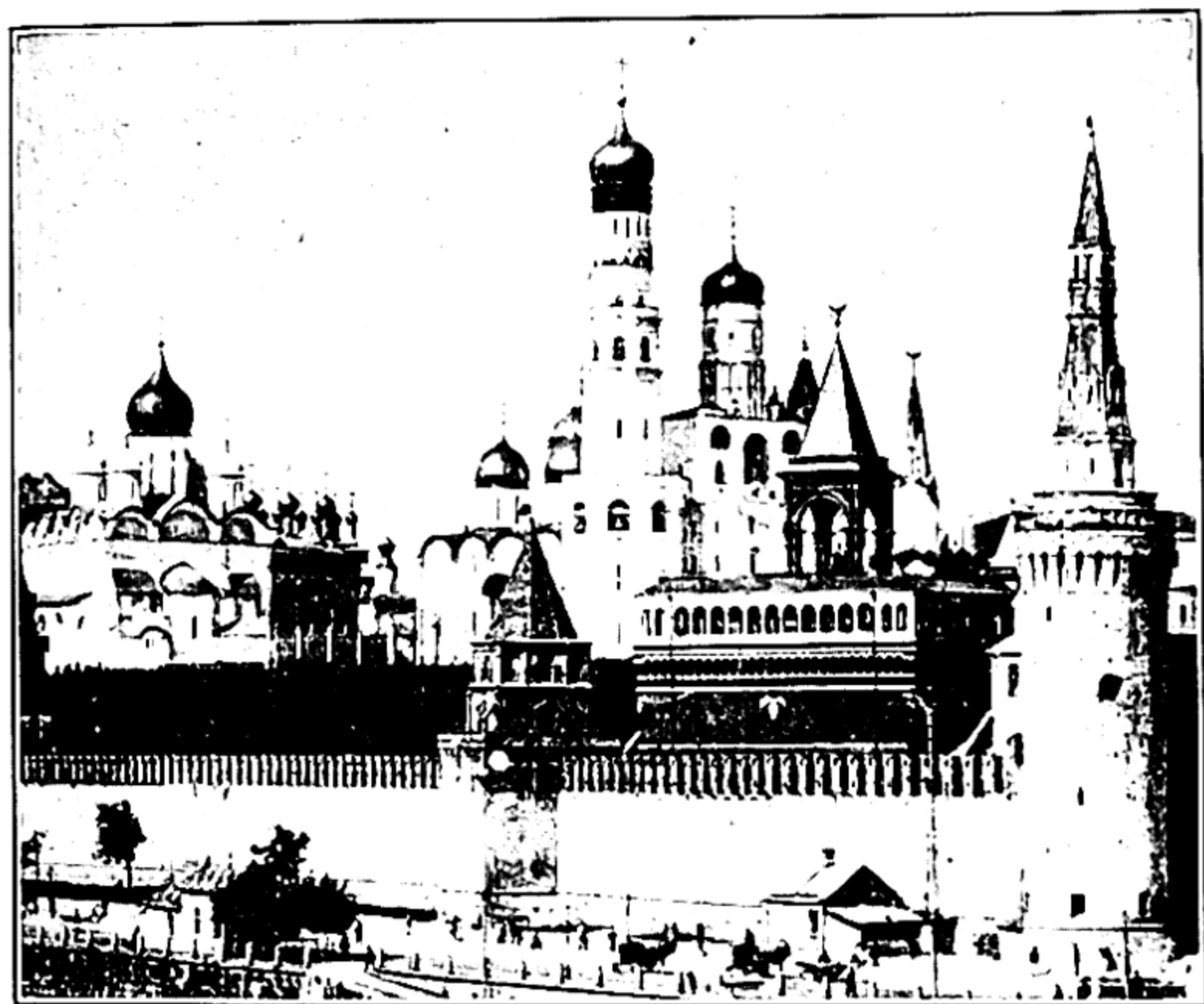
A FISHERMAN OF THE
SIXTEENTH CENTURY

Ivan the Terrible. Chancellor then told them how he carried with him a letter from the King of England to the Emperor of Russia, and as soon as the men heard this, they sent some of their number off to Moscow, the capital of Russia, to tell Ivan the Terrible of the arrival of the Englishmen, and to ask his permission to trade with them.

Chancellor waited; but as the weeks passed and still no word came from the Emperor he became impatient and started off. The journey was a long one, for hundreds of miles lie between the White Sea and Moscow. They travelled by sledges over the hard ground till at length they met the messengers for whom they had waited so long, and who bore a message of welcome from the Emperor. The messengers had lost their way, and had spent weeks looking for Chancellor's ship, but now they journeyed on together.

As the Englishmen drove on day after day, they were amazed at the great forests through which they passed, where bears and wolves prowled; at the huge lakes which glistened in the distance, and at the mighty rivers which flowed on till they were lost in the great ocean of the north. After many days they reached Moscow, a city about the size of the London of that day, a city whose houses were mainly built of wood, whose streets were unpaved, and whose churches raised their golden domes in the clear, frosty air.

For twelve days they stayed in the city, and at last they were summoned into the presence of the Emperor. The palace was a low building, square in shape, and as they entered the great hall there sat Ivan, wearing a robe of gold, a golden crown upon his head, and a sceptre studded with precious stones in his hand. On one side of him stood his chief secretary, on the other the Commander of Silence,



THE KREMLIN, MOSCOW

Still a city of domes and spires, semi-oriental, very much as it was when Chancellor saw it.

both in robes of gold, while below him sat one hundred and fifty councillors also clad in gold and wearing high pointed caps. Having been presented to the Emperor, Chancellor gave him the letter from the King of England, and Ivan showed great interest in the strangers and their King. He then invited the Englishmen to dinner later, and dismissed them from his presence.

The scene in the great dining hall made Chancellor and his men marvel at all they saw. As before, the Emperor sat upon a throne with his crown on his head, but this time he wore robes of silver. The hall was filled with guests who were waited on by a hundred and forty servants clad in cloth of gold. Then the Emperor rose, made the sign of the cross upon his forehead, and, calling every guest by

name, gave to each a piece of bread. The feast now began. Eight young swans were carried in on plates of gold; the wine was served in golden vessels—and so it went on, each course more wonderful than the last, till the feast was over. Darkness fell, the candles were brought in, and the Emperor rose; but before he left, once again he called the name of each guest.

Chancellor stayed for some weeks in Russia, visiting the neighbouring towns and noting all that he saw in the markets there. At last Ivan gave him a letter to the King, granting the English permission to trade with Russia, and Chancellor and his men set off for the White Sea. They found their ship quite safe, and as soon as the sea was free from ice they set sail for England.

Next year Chancellor set off again, and, having traded successfully, was returning home when a storm overtook his ship and he was drowned.

§ 2. *JENKINSON*

THE road to India by the North-East passage was still undiscovered, but four years later Anthony Jenkinson sailed away 'toward the land of Russia,' this time hoping to continue farther south and find a way overland to Cathay.

He reached the White Sea safely, and then came the long sledge journey to Moscow. After staying there for some time, he left for the south, full of hope, and carrying letters from the Russian Emperor to all Kings and Princes whose lands he might pass through.

Jenkinson and his men soon reached the mighty river Volga, and there they met a Russian captain on his way south. They journeyed down the great river with him and



PART OF JENKINSON'S MAP OF RUSSIA

In the top left-hand corner is the Tsar, supreme ruler of this vast empire.

his men, and after three months reached Astrakhan by the shores of the Caspian Sea, the first Englishmen to have crossed Russia from north to south. They set sail and, after voyaging for some weeks, encountered such storms that they were glad to land on the eastern shores. There they gathered together a caravan of camels, and soon set

out on the great journey which they hoped would end in Cathay. They had not been long on the way when they met bands of Tartar robbers; but they escaped from them, and at length reached the river Oxus. So glad were they that they stayed for some time by the river, resting and refreshing themselves and their camels. Then on they went, and after a long journey, again through a desert, they at length reached Bokhara.

It was Christmas time when they arrived. Merchants from India and merchants from far-off Cathay thronged the streets, and, full of hope, they talked with these men and eagerly asked about the journey which still lay before them. Alas!—their hopes were raised only to be dashed; for the merchants of Bokhara itself were poor, the road to Cathay was impossible owing to wars, and a severe winter was coming on. For two months Jenkinson and his men waited, hoping that they might be able to go on; but his men were tired out, his provisions were running short, and at last he had to give up and turn back.

With six hundred camels he started off, and, going by the same way as he had come, he at length reached Moscow. Again he sought the presence of the Emperor, but this time he was tired and disappointed. Ivan asked how he had fared and Jenkinson told him of voyages by river and sea, of long journeys on camel-back, of narrow escapes from robber bands; and the Emperor listened, enthralled by all he heard, and delighted when he beheld the gifts which Jenkinson had brought back to him—‘a white cow’s tail of Cathay and a drum of Tartary.’ To us these seem strange gifts, but to Ivan they were gifts that told of mighty Empires in the south. For some months Jenkinson tarried in Moscow, and then set sail once more for England.

§ 3. *NORDENSKIÖLD*

‘Then Polar snow came down little and light,
Till all the sky was hidden.’

AND what of the North-East passage? Not yet had any one reached the eastern shores of Asia by the north-east, and it was not till three hundred years later that Nordenskiöld, a native of Sweden, made up his mind to find the way. One summer morning of the year 1878, a little vessel, the *Vega*, flying the flag of Sweden, sailed out of the Baltic Sea, carrying thirty people on board with food enough to last them for two years, and also sledges, tents, two dogs, and a small black kitten.

Northward they sailed, round the North Cape, and eastward past the White Sea. By July they had reached the Kara Sea, and there they anchored. As the sailors looked towards land, they saw a tiny village, near which stood a wooden church. The natives, dressed in reindeer skin, hurried down to the shore to meet the men, and for a few days they stayed there, journeying in reindeer sledges and admiring the skins and walrus tusks which belonged to the natives.

But time was precious, and on they must sail if they were to reach the Behring Strait before winter came on. They kept close to the shore, and saw the mouths of great rivers which had flowed for hundreds of miles through the vast country of Siberia. Sometimes they would land and hunt for bears or reindeer; but they dared not loiter, for time was short, and they had far to go.

One morning in August, in a dense fog, they anchored off the headland called Cape Chelyuskin, the most northerly point in the Old World. With flags flying, they fired a salute of five guns, for they had reached a point

where no other ship had ever been. All was silent; they were alone on the rim of the world—or, at least, they thought so, till suddenly the fog lifted for a moment, and



A POLAR BEAR

Adrift on an ice-floe, a lonely voyager over desolate seas.

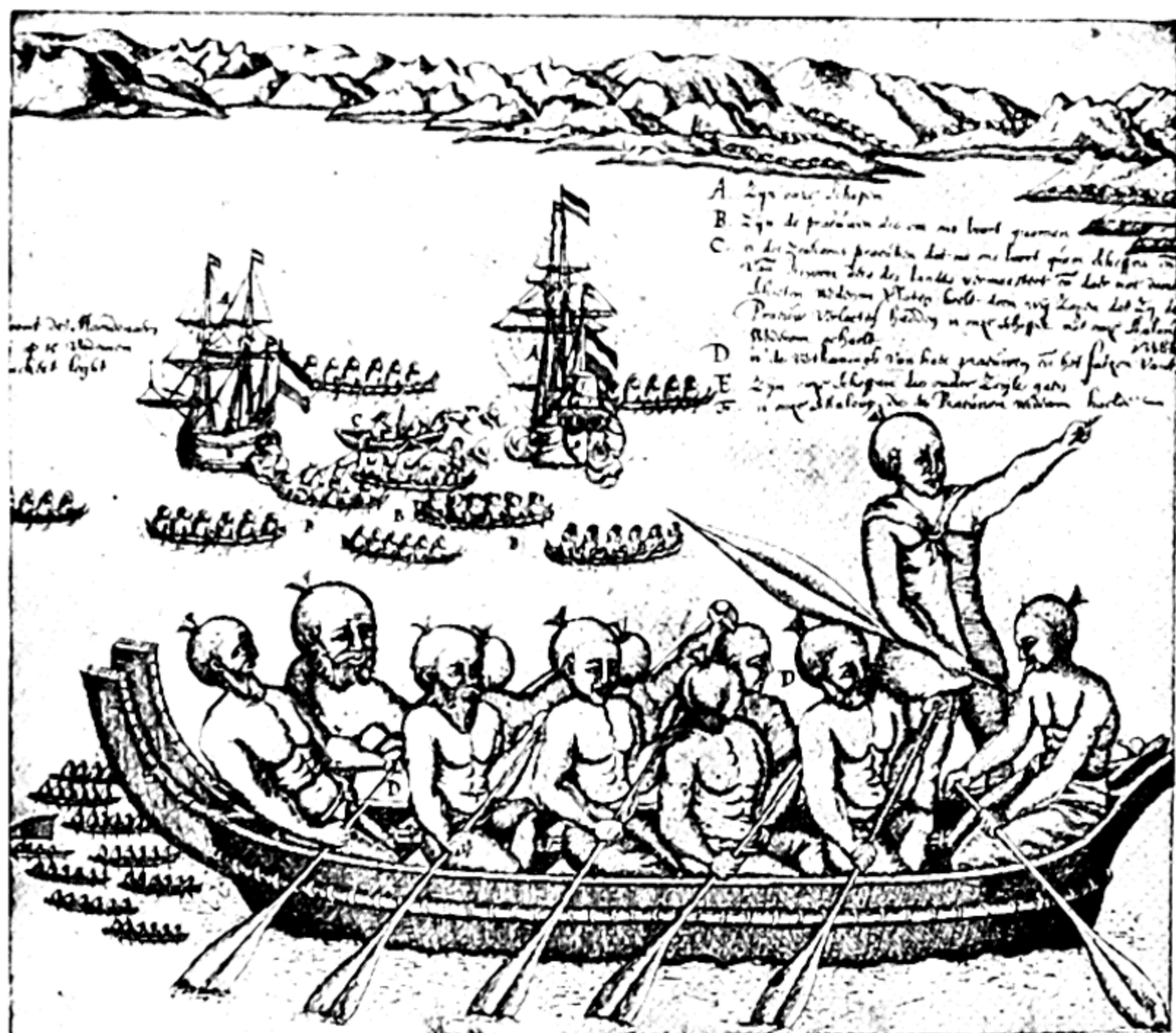
there, watching them, stood a magnificent white polar bear! He, alone, was there to welcome the sailors! The men built a pile of stones on that lonely northern shore, and steered away.

The weather now changed, snow began to fall, ice floated by; but still they managed to go on, and by

September they reached the New Siberian Islands, where they found the ivory tusks of long-dead mammoths.

By this time snow fell heavily, the ice was closing in, and the fog was thicker than ever. Sailing was slow and difficult. Would they reach the Behring Strait before the ice blocked their passage? They sailed gallantly on. To their surprise, one morning they found the shore lined with excited natives, little dark-haired Chukchis, dressed in skins of walrus, seal, or reindeer, who were eager to make friends with the sailors, for few strangers came to that far-away corner of the world. The *Vega* dared not stay, however, for in two days she would reach the Behring Strait. Snow swept down on her, dense fog surrounded her, and the ice closed in—she was too late! Within a few hours of freedom, she was imprisoned for the long winter. Darkness fell, storms raged, snow drifted everywhere, and blizzards howled round the ship.

The long months passed, and with the spring the birds began to return; but it was not till July that the *Vega* could make her way through the ice and leave that desolate shore, the home of those strange little people, the Chukchis, who had visited the ship many times, and whose company had helped to pass many a long dark day. Two days later she rounded the East Cape and entered Behring Strait, the narrow Strait that separates the Old World from the New. They then steered due south into Behring Sea, past a lonely island, the home of two hundred thousand seals, and, skirting the shores of Cathay, they rounded Asia, and at length reached Sweden two years after they had left. Sebastian Cabot had been right—there was a way to Cathay by the north-east.



MURDERERS' BAY, 1642.—From Tasman's original journal
In the background are Tasman's ships, surrounded by the native canoes.

CHAPTER IX AUSTRALIA AND THE PACIFIC

§ 1. *TASMAN*

ABEL TASMAN was a Dutch sailor who went in search of adventure to the East Indies. His countrymen owned many of these rich islands, and from them Dutch ships returned to Europe laden with ginger and cinnamon and cloves. Sometimes an adventurer would sail the Pacific in search of other lands even richer, and Tasman himself took part in an expedition to find an island which was said to be full of gold and silver. Among the lands the

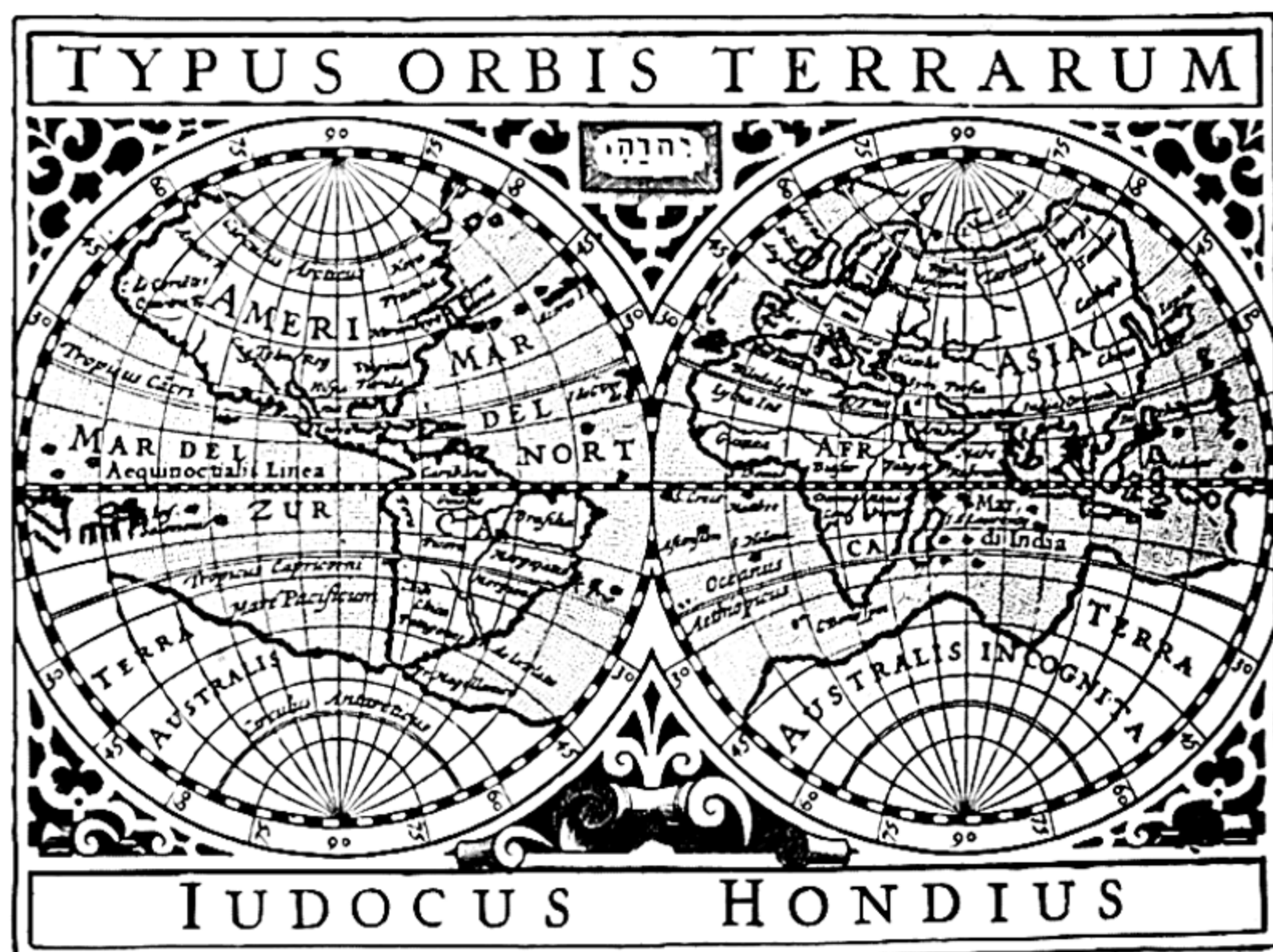
Dutch had discovered was 'New Holland' which lay to the south. But 'New Holland,' said its discoverers, was rocky and barren, inhabited by fierce savages, and the Dutch did not think it worth the expense of further voyages. Only the Governor of the Dutch East Indies, Anthony Van Diemen, believed that discovery was always worth while, and wished to find out all about this southern land. Was it, he wondered, part of a great continent, which stretched to the South Pole? He could not go himself, so, in 1642, he sent Tasman.

Tasman did not sail due south, because the wind was against him. First he sailed westwards, then to the south-east. After three months at sea he caught his first sight of the new land. It was, as the stories had said, a wild, mountainous country, and for three days Tasman lay off the rocky coast while a gale blew and the waves ran high. At last the sea became calm enough for him to land, but his crew were terrified. Never had they seen such enormous trees, never such a strange, wild land! As night fell they seemed to see, through the gathering mist, gigantic forms moving along the shore. They were filled with horror at the idea of setting foot upon a land peopled by monsters.

Next day they sailed along the coast, away from that giant-haunted shore, and Tasman determined to land and take possession of this newly discovered country for Holland. But the waves that broke upon the strand would have upset a small boat, so the ship's carpenter, a brave man and a fine swimmer, jumped overboard, swam to shore, hoisted the Dutch flag, and fought his way back to the ship through the waves. 'As the land had not been known before to any European, we called it Anthony Van

Diemen's Land,' wrote Tasman. But now it is called by the name of its discoverer, Tasman, who, by sailing first west and then south-east, had missed Australia and found Tasmania.

From Van Diemen's Land the Dutchmen sailed east for



The world-map of Jodocus Hondius, showing the supposed southern continent, *Terra Australis Incognita*.

three days, till again they reached the coasts of an unknown country. This land, which we still call New Zealand, was named after a part of Holland. It looked to Tasman pleasanter than the giant-haunted coast he had left; but the natives were, he found, much more dangerous than imaginary monsters, and, at one landing-place, the Maoris, who inhabit New Zealand, killed so many of his men that he called it 'Murderers' Bay.'

Tasman returned to tell Van Diemen of his discoveries;

but though the Governor was delighted, and though Tasman sailed once more on a southward voyage of exploration, the Dutch Government soon afterwards gave orders that money was not to be spent on 'barren discoveries,' so that the work of Tasman and of Van Diemen for their country was left unfinished.

§ 2. CAPTAIN JAMES COOK

IN a little Yorkshire village on the east coast of England lived a boy called James Cook. He had been apprenticed to a draper, but he hated a shopkeeper's life, and, when he was fourteen years old, he ran away to sea.

For twenty-seven years Cook served first in the Merchant Service and then in the Royal Navy, and so great were his ability and his determination that in 1769, at the age of forty-one, he was chosen by the British Government to command an expedition which was being sent into the South Seas to observe an eclipse.

Cook sailed his ship, the *Endeavour*, by the Madeira Islands to Cape Horn and across the Pacific, arriving at Tahiti in time to take observations of the eclipse. The natives of the island he describes as 'tall and strong,' living on the fish which they caught from their long narrow canoes, and the coco-nuts which grew on their tall palm-trees. They were, he found, very clean, and always washed their hands after meals. But they were terrible thieves, and again and again Cook tells of how they picked the Englishmen's pockets and carried off muskets and pistols.

The houses of the natives were airy and pleasant, roofed with palm-leaves, and the climate was so warm and food so easy to get that many did nothing but eat and drink.



MAORI WOMEN COOKING IN THE HOT SPRINGS

In those parts of New Zealand where there are springs of boiling water, one has only to let down one's food to have it cooked.

Sometimes they amused themselves by playing on a drum 'made of a hollow block of wood covered with Shark's Skin.'

On their hair they poured coco-nut oil, which smelt sweetly so long as it was fresh, and on their bodies were tattooed patterns and 'figures of men, birds, or dogs.' Their clothes consisted of long strips of cloth wound round their bodies, and on their heads they wore 'little bonnets made of coco-nut leaves.'

From Tahiti Cook sailed southwards, looking for the southern lands which Tasman had found. Were these, men had wondered, parts of a great southern continent?—but Cook sailed round the islands we call New Zealand and thus proved that they were not.

Like Tasman, Cook found that the Maoris were a fierce

people. These 'strong, rawboned, well-made, active people' were, he says, 'of a very dark brown colour, with black hair, thin black beards and white teeth. . . . So warlike were they that as soon as they had paddled their canoes near to the ship they would call out, 'Come here, come ashore with us, and we will kill you.' These people were cannibals.

From New Zealand Cook sailed westwards towards Van Diemen's Land, and in less than three weeks he was coasting northwards by the unexplored shores of eastern Australia. At one bay at which he landed grew so many different kinds of flowers that he named it 'Botany Bay.' Here the natives were tall and dark with long black hair. They lived chiefly on the shellfish which they found on the beach, and so savage were they that Cook would not let his men go too far into the woods in case the natives should fire at them with their poisoned arrows.

From Botany Bay the *Endeavour* sailed northwards some nine miles, till a great inlet was reached which Cook called Port Jackson after one of the organizers of the expedition. This splendid harbour is the one on which stands Sydney, the capital of New South Wales. Northward still he sailed, giving names to the newly discovered capes and bays, till he reached the Great Barrier Reef. Here, though Cook did not know it, the coast is guarded by long stretches of coral which lie just under the surface of the sea.

It was a clear, moon-lit night, the water was deep, the wind favourable, when suddenly the ship ran upon a coral reef and stuck fast. The only hope of getting her off was to throw overboard the heaviest articles they had—guns, casks, stores. Forty tons went overboard, and still she did not float. Not till the tide rose was the water deep

enough, and now they had to face a worse danger: the sharp-pointed coral had torn a hole in the vessel's side and the water was rushing in! Death stared them in the face. Desperately the crew toiled at the pumps to keep the ship from going down, and at last they reached the shore and ran the ship aground.

The bay in which they landed is called Cook Bay, and the river which runs into it is called after the ship, the Endeavour. While they were on shore, repairing the ship, some of the men went inland to get fruit, and Cook tells of how they saw 'an animal something less than a greyhound, it was of a mouse colour, very slender made and swift of foot.' This animal the natives called the 'Kangooroo.'

From Australia Cook turned northwards to New Guinea. He would have liked to explore farther, but his men were tired of a voyage which had lasted for more than two years. So he turned westwards by the Cape of Good Hope, and then sailed northwards till, at two o'clock on the afternoon of the 11th of July 1771 he sighted the Lizard, and ran up the Channel to anchor in the Downs.

A year later Cook set off again for the South Seas, to look for the great southern continent which was supposed to lie somewhere in the Pacific. This time he tried to get as near to the South Pole as possible, and in spite of much danger from 'a vast field of ice and much foggy weather and large islands or floating mountains of ice,' he succeeded in crossing the Antarctic Circle. His voyage lasted for three years, and, though he did not find much that was new, he returned, 'fully satisfied that there was no Southern Continent.'



THE GREAT BARRIER REEF

For twelve hundred miles—sometimes as much as a hundred miles wide—the reef throws up its fantastic shapes, like giant flowers, or fruit, or stag's antlers.

Two years later he started on his last voyage. Once more he sailed southwards, till he reached New Zealand. But the chief object of the expedition was to sail among the Pacific Islands, and, turning northwards, to explore the uncharted seas that lay between North America and Asia.



KANGAROOS

When the baby is tired, or danger threatens, the mother carries it in her pouch.

The 25th of December was spent at a small island on the shores of which the men found the turtles that took the place of turkey at their Christmas dinner. This island is still called 'Christmas Island.' A little later the explorers reached a group of islands which Cook called after an English nobleman, the Earl of Sandwich. The natives were friendly and Cook was able to purchase food, chiefly pigs and potatoes. Soon he set sail again, for the north now, and reached the shores of North America near the mouth of the Columbia River. The weather was cold, the wind strong, but the explorers sailed on till they reached

Nootka Sound. The natives here were very different from those of the South Sea Islands. They dressed in skins to protect themselves from the terrible cold, and, far from being clean, they appeared to be dark-skinned till 'after much cleaning they were found to have skins like our people in England.' But like the Islanders they were

skilful thieves, and Cook sadly tells of how they carried off every piece of metal on which they could lay hands, even copper kettles.

On this northward voyage Cook hoped to find some strait that would lead him eastward, but, instead, the coast bent to the west. Past an inlet he sailed, to which he gave the name of Prince William's Sound, onwards into colder and colder seas, till he had passed the narrow strait that separates Asia from North America. They had reached the Behring Sea, and crossed the Arctic circle. It was a great triumph for Captain Cook: he had sailed farther north and farther south than any man alive, but he was less proud of his four thousand miles of newly explored coast than of the health and safety of his crew. For he had set himself to do away with scurvy, the terrible disease from which so many sailors died: he insisted upon his men gathering herbs wherever it was possible, and so looked after their washing and their beds and their food that during that long voyage not one man suffered from scurvy.

Ice and fog made it impossible for the explorers to go farther north, so Cook sailed once more southward and returned to the Sandwich Islands. The natives were friendly—many, indeed, worshipped Captain Cook and the Englishmen as if they were gods. But the native priests were jealous, and a quarrel broke out. As Cook walked quietly back to his boat through an excited crowd of natives, one stabbed him in the back with a dagger, so that 'he fell into the water and spoke no more.'

§ 3. *STURT*

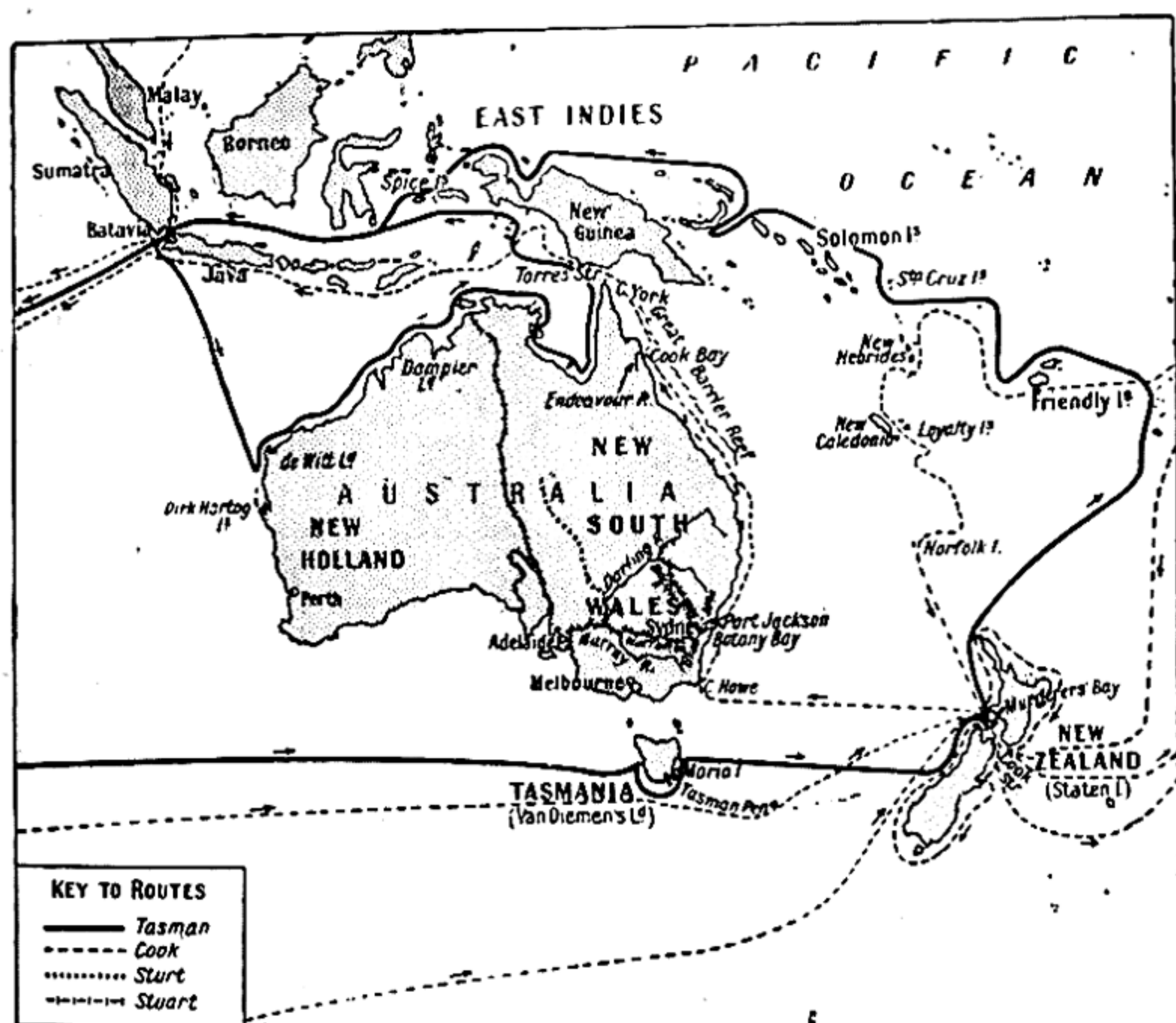
ON the eastern shore of Australia, the British had formed a colony. There, in the land which Captain Cook had named New South Wales, grew up the town of Sydney, overlooking the splendid harbour of Port Jackson. There were few white men beyond the town itself—a few farmers and their servants, ‘stock-riders,’ who found grazing for their sheep and cattle on the far-stretching plains.

When Captain Sturt, an officer of the British Army, who had seen fighting in many parts of the world, was ordered with his regiment to Sydney, he ‘embarked for New South Wales with strong prejudices against it.’ But soon he began to find that the people were kindly, and that the country was an interesting one.

Of the interior nothing was known. All sorts of stories were told of a vast inland sea, of wonderful rivers, of treasures to be gained for the picking up; but it took a brave man to find out the truth of these stories. The mountains were high and steep, in some parts lay deserts, in others vast swamps.

Sturt determined to penetrate to the interior, to try to find some route that would lead him from Sydney to the south-west. If only he could find a river down which it would be possible to sail to the sea, he would discover a way far easier to follow than any of the land tracks.

He and his thirteen companions set off westward across the Blue Mountains. Their stores were carried in carts dragged by oxen, and with them they took also a boat which was set on wheels. The heat was terrific, 129 degrees in the shade, and the country was parched. For nearly three years no rain had fallen. Through the



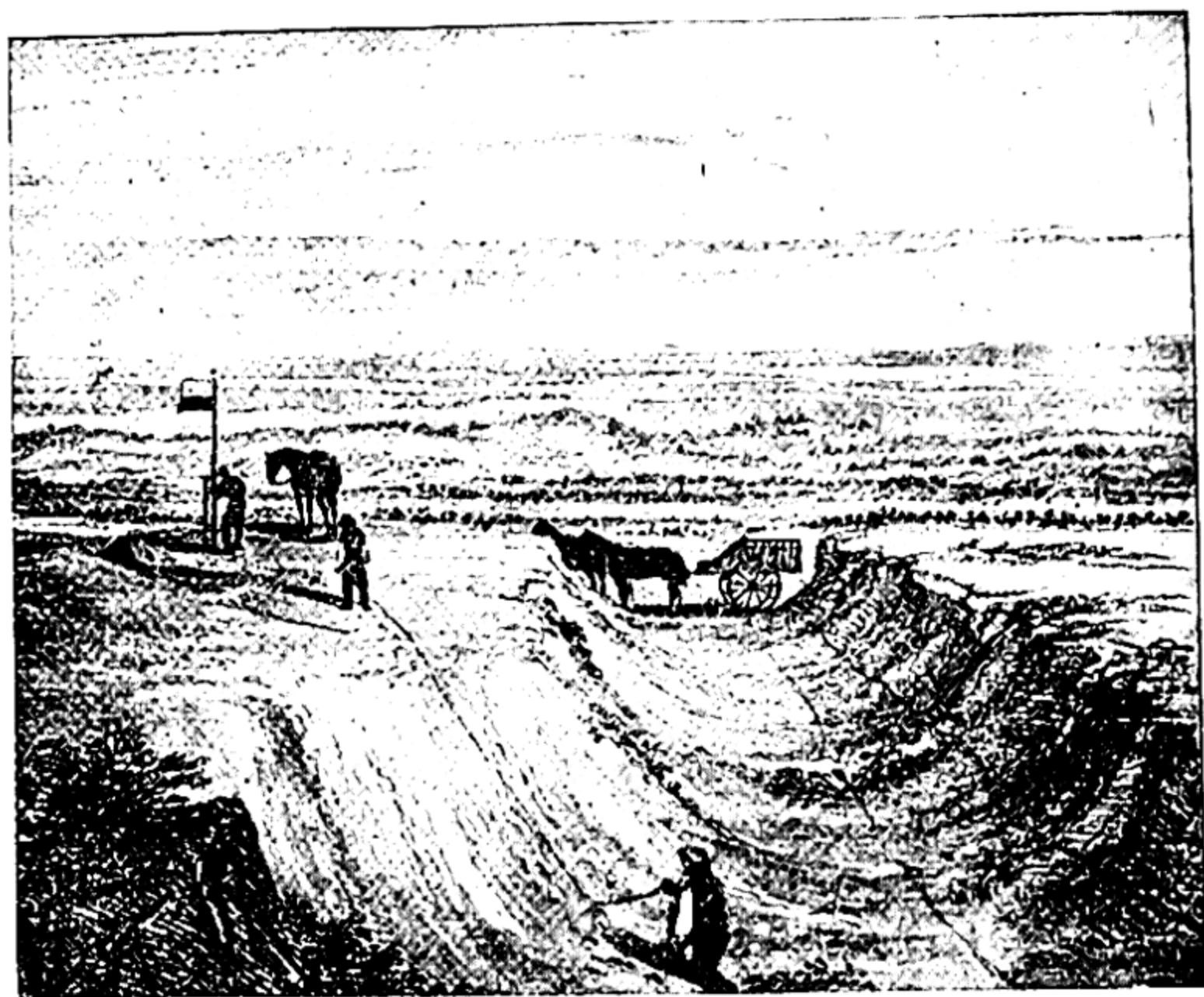
burnt-up lands they went till they reached the Macquarie River which flows westwards. But this river proved a disappointment: only too soon it vanished among reeds and swamps, where sailing was impossible. Sturt gave up hope of finding a water-road by the Macquarie, and struck westward with his horses.

The plains seemed endless, and water became scarcer and scarcer. 'The natives themselves had left that desert land, now that neither food nor drink could be found there.' Sturt and his men were in despair, when 'We suddenly found ourselves on the banks of a noble river. The men eagerly descended to quench their thirst, nor shall I ever forget the cry of amazement that followed their doing so, or the look of terror and disappointment with which they called out to inform me that the water was salt.' It seemed as if all were lost, when one of the party

who had been wandering by the banks of this salt stream, returned to tell that he had found a pool of fresh water. Their lives were saved. Soon they returned to Sydney to tell of their adventures and of the discovery of the great river. Sturt called it the 'Darling,' after the governor of New South Wales.

As soon as possible Sturt set out again. This time he intended to follow another westward flowing river—the Morrumbidgee. With him he took a 'condenser'—an instrument for getting fresh water from salt. He and his party crossed the plains to the banks of the river, and there they stopped to put together the two boats which they had brought with them. As they floated down the river one boat ran into a hidden tree which ripped a huge hole in her side, so that she sank—and the condenser with her! Sturt did not dare go on without it: he set to work to bring it up. First his men raised the boat; then with a long oar they sounded the place in which it had sunk. As soon as anything was touched two men would hold the oar steady, while a third climbed down to the bottom of the river, twelve feet below, and fished in the mud for what was lost.

The Morrumbidgee was a dark and dangerous stream, and Sturt was glad when it flowed into a wide and sunnier river. This he called the 'Murray,' after a well-known officer whom he admired. As they sailed westwards down the Murray River a number of natives appeared on the bank, holding their spears 'quivering in their grasp to hurl. They were painted in various ways. Some who had marked their ribs and thighs and faces with a white pigment, looked like skeletons.' Just as they seemed about to attack the boats, another native hurled himself from the opposite bank, swam across, and began to urge the warriors



STURT'S EXPEDITION SURVEYING AMONG THE SANDHILLS

not to fight. His arguments were successful, but so absorbed were Sturt and his men in watching that at first they hardly noticed they had come upon a great river that joined the Murray from the north. This, Sturt knew, must be the Darling, though now its waters were not salt but fresh.

A month after the boat journey had begun, Sturt and his men began to notice that sea-gulls 'flew over our heads,' and these he hailed 'as the messengers of glad tidings,' for now, he knew, they must be near the sea. But the Murray River did not flow into the sea: it ended in a lake from which the boats could find no passage. The only channel was too shallow, and, with the thunder of the surf in their ears, the little party had to turn back.

It is a different matter to float down a stream and to row up it. Day after day the men tugged at the oars, day after

day they became wearier and wearier. As they lay down at night Sturt would hear a man say, 'I can't row any more. I'll tell Captain Sturt to-morrow.' But when the morrow came no man refused to pull at his oar. Food ran short, and one man, overcome by exhaustion, went mad. For seventy-seven days they rowed, till they had gone some two thousand miles, and then at last they reached the camp from which they had set out. Here they hoped to be met, to have food to eat, and horses to ride—but there was no one there.

Sturt was sure that the relief party could not be far off. He picked two of his best men, and sent them off across the plains in the hope that they would find help. He and his exhausted companions waited by the stream. Six days passed, the last ounce of flour had been served out, there was no more food.

Sturt, in the desperate hope of finding some food, took his gun and left the camp. A loud shout told him of the return of his comrades and the arrival of supplies. But though their lives were saved, Sturt had suffered so terribly that for many years he was blind, and the book which he wished to write about his adventures had to be dictated.

It was not until 1844, fifteen years later, that Sturt's sight came back, and he could set off on another expedition. This time he wished to cross the continent from south to north. He hoped to find in the interior some waterway which would help him, perhaps the great inland lake of which he had heard. But the country grew drier and drier till it was sheer desert. Under his feet, though he did not know it, lay untold wealth, for his journey took him across land afterwards famous for its silver mines. After two months of travel he and his men reached an oasis beyond

which they could find no water. They could go no farther. Should they go back, they wondered, or should they wait till rain should fall and the pools on which they depended for their water be refilled? They determined to wait. The heat was terrific, the screws fell out of their wagons, their finger nails split. For nearly two years they waited, but no rain fell. Worn out by heat, and travel, and illness, Sturt returned home, never to explore again. Yet his expedition was not altogether a failure; for it was John McDouall Stuart, one of the men who had been trained by him, and who had shared his hardships, who first crossed Australia from south to north.



AUSTRALIAN ABORIGINES



A PICTURE OF AFRICA BY THE SEVENTEENTH-CENTURY ARTIST STRADANUS

He would have heard of the many strange beasts to be found in Africa, so he put them all together into his picture!

CHAPTER X

AFRICA: THE DARK CONTINENT

§ 1. *MUNGO PARK*

‘I shall discover the termination of the Niger, or perish in the attempt.’

IN a two-roomed cottage in the south of Scotland, not far from the River Tweed, lived a farmer called James Park, his wife, and his thirteen children. When the third boy, Mungo, was eighteen years old—and over six feet in height—he began to study medicine; but his heart was set upon going to Africa and trying to discover something about the interior of the ‘Dark Continent.’ A wealthy London merchant had founded a society to help explora-

tion in Africa. When Mungo was twenty-four years old he offered his services to this society. He was warned that the last English explorer sent out by the society had been murdered by the natives; but instead of being frightened, Mungo Park became all the more determined to find out about these savage people and the land they lived in.

He sailed for the coast of West Africa, and, on 21st June 1795 landed at the little port of Jellifree, near the mouth of the River Gambia. Somewhere inland, he was told, was a great river, but no one knew where it rose or where it reached the sea; so Mungo resolved to find this river and follow its course. He hired a horse for himself, and two donkeys for his servants, an interpreter and a boy, and off they went.

In one village through which Mungo Park passed there was said to live a strange creature called 'Mumbo Jumbo.' In his journal Mungo Park told of its horrible face, the great horns on its forehead, the skins of wild animals on its back. Sometimes the men of the village would call upon Mumbo Jumbo to keep the women in order; and when the women saw the monster they would run away screaming—but Mungo Park found out that Mumbo Jumbo was really only a man dressed up!

The people of the country through which he passed were Mohammedans who hated Christians. Their chiefs were Arabs or Moors, and, as in the time of Vasco da Gama, they were not pleased that a white man should come among them. In order to get even food and shelter Mungo Park had to give presents to these chiefs. To one he gave an umbrella, but the chief so greatly admired Mungo's blue coat with its brass buttons that he had to take it off and give it, in order to make friends.

Sometimes Mungo Park had to go for days without food or shelter. One of his worst experiences was when he was made prisoner by an Arab chief called Ali. 'Ali,' wrote Mungo Park in his journal, 'appeared to be an old man, with a long white beard, and he had a sullen and indignant aspect.' The people of his village were very inquisitive, 'they asked a thousand questions, searched my pockets, and obliged me to unbutton my waistcoat and display the whiteness of my skin; they even counted my toes and fingers.' Ali imprisoned Mungo Park in a hut made of corn stalks, and gave him as a companion a fierce wild hog tied to a stick. Hardly any food was allowed him, and his captors continually threatened to shoot him or to torture him to death. One night when every one was asleep, Mungo Park crept out, mounted his horse, and rode away. The day dawned hot and bright, but he had no food and could find no water. At last he fell fainting upon the burning sand, feeling 'as if the hour of death was fast approaching.' And there he would have perished had it not begun to rain, so that Mungo Park was able to suck the water from his soaking clothes and quench his thirst.

As the days passed, his horse became too weak to carry him, and he was in constant danger of death from hunger, thirst, or at the hands of the natives. 'As I approached Doolinkeaboo I met forty Moors on horseback,' wrote Mungo Park; 'they were well-armed with muskets.' Mungo Park could not escape from them, for he was walking bare-foot, driving his exhausted horse before him, so he was glad to find that these horsemen were nothing worse than inquisitive, and did not intend to ill-treat him. So on he went to the little town of Doolinkeaboo. The Dooty, or governor, gave him nothing but a drink of water;



A WEST AFRICAN NATIVE VILLAGE

he had hoped for 'a good supper and a sound sleep,' but had neither, and must spend a wet, hungry night in the open. For three weeks he pushed on, till at last he could write, 'I saw with pleasure the great object of my mission—the long-sought-for, majestic Niger, glittering to the morning sun, as broad as the Thames at Westminster.'

On the other side of the river was a town where he hoped to obtain food and shelter, but the natives would not allow him to cross. There were many wild beasts in the neighbourhood, and at sunset Mungo Park, hungry and despairing, was preparing to climb a tree, to shelter among its branches, when a poor Negro woman who was passing beckoned him to her hut, cooked him some fish, and gave him a mat on which to lie down. While he rested, she and the other women in the hut sang, 'The poor white man faint and weary, came and sat under our tree. He has no mother to bring him milk, no wife to grind his corn.' In the morning Mungo Park gave to the kind woman the only gift he could—two of the four brass buttons which remained on his waistcoat.

Near the Niger, it was said, lay a mysterious city, a great market, where gather from all parts of Africa,

'Those long caravans that cross the sands
With dauntless feet and sound of camel bells,'

the city called Timbuctoo. Mungo Park had hoped to follow the Niger as far as this city, to write of its wealth and beauty, and to take sketches of its merchants and their negro slaves. But he was alone, the Arabs were hostile, and he could go no farther. He must return home to tell of his travels and of his discovery of the Niger.

The rainy season had begun, however, the streams were in flood, the solid land was turned to mud. His horse was

animals and men still more savage. I was 500 miles from the nearest European settlement.'

Nine months later, ill and exhausted, Mungo Park reached the coast, and set sail for England after an absence of two years and ten months.

For some years he remained in his own country, but the longing for adventure was too strong for him, and in 1805 he again set sail for Africa. On the shores of the Gambia he gathered a party together—forty-four white men and forty-two donkeys—and they set off to reach the Niger, follow it to its mouth, and find the mysterious city—Timbuctoo. But the rainy season with all its fevers and disease was beginning, and of the soldiers who had left the Gambia only six reached the Niger. Yet Mungo Park would not turn back. 'Though all the Europeans who are with me should die, and though I myself were half-dead, I would still persevere; and if I could not succeed in the object of my journey, I would at least die on the Niger.' His servant carried the letter back to the coast, and told how Mungo Park and his remaining followers had set out on their long voyage down the Niger. It is thought that he and his men reached their long-sought city, Timbuctoo, and, sailing down the river beyond it, were murdered by the Arabs—all that is certain is that none of the little party ever returned, and that Mungo Park did 'at least die on the Niger.'

§ 2. *DAVID LIVINGSTONE*

'The Zambezi. Nobody knows
Whence it comes and whither it goes.'

IN the little town of Blantyre, on the River Clyde, lived a poor man called Neil Livingstone. His son David, while

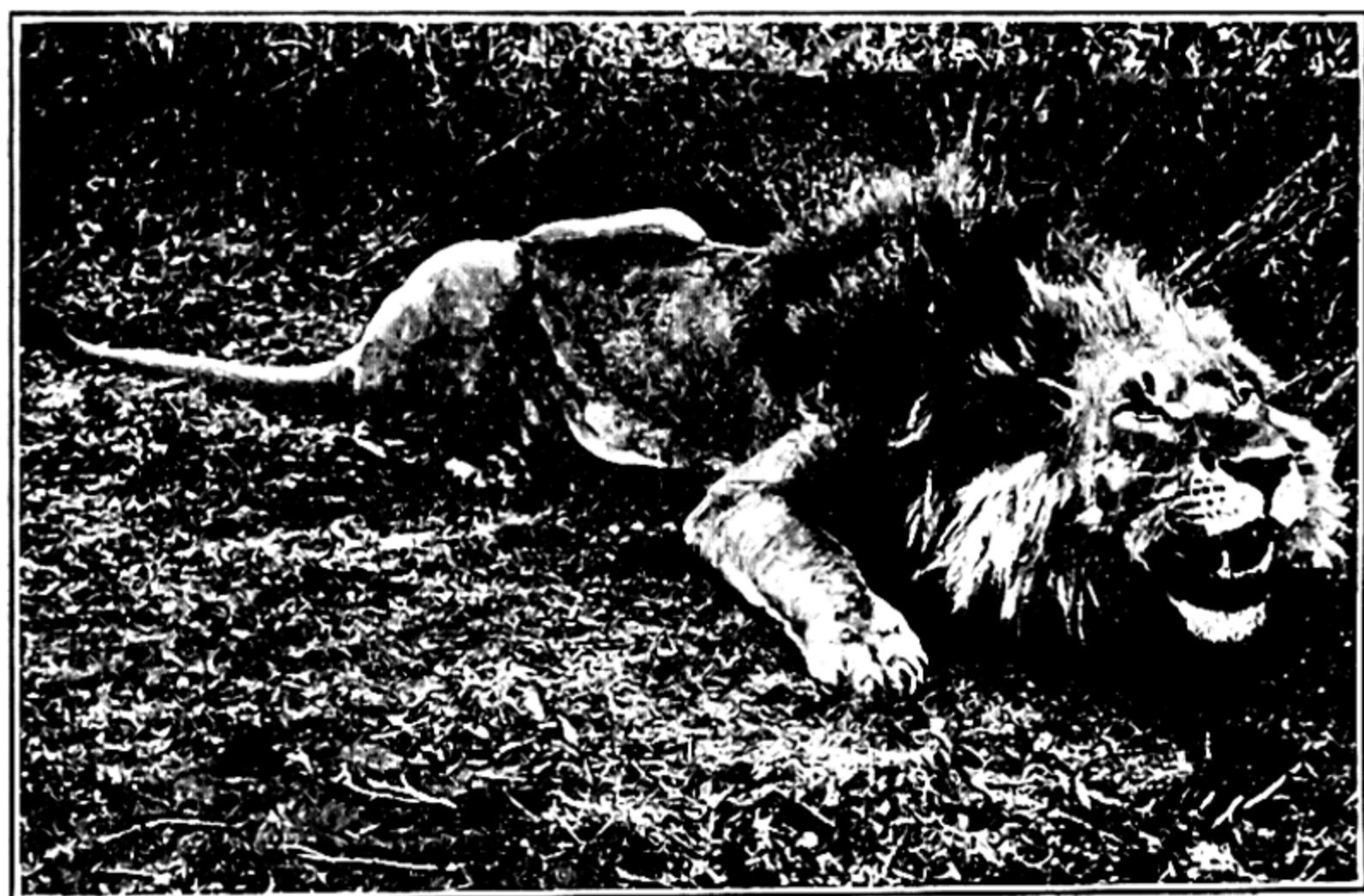
he was still a small boy, was known to the people of Blantyre as a fine climber and a keen fisher. He was interested, too, in birds and animals, and in everything he saw out of doors.

When he was only ten years old David Livingstone had to leave school and begin to earn his own living. He had few holidays now, for he had to work in a mill six days in the week, from six in the morning to eight at night. It was dull work, and he made up his mind not to be a mill-boy a moment longer than he could help. He determined to be a doctor, and to go abroad. His father was too poor to send him to a University, so he resolved to pay for himself. He would work in the mill during the summer, that with the money he earned he might go to the University in the winter.

In the year 1841, David Livingstone, now Doctor of Medicine, landed at Capetown, and set off up-country. Since the days of Vasco da Gama many white men had sailed by the coasts of Africa, but of the interior little was known except that it was a land of fevers, of savages, and of slaves. Livingstone determined to cure the fever, teach the savages, and free the slaves. Near Capetown there were British and Dutch Colonies, so he decided to go northwards through these colonies, and then push on into the unknown. It was on his northward journey that a terrible adventure befell him.

‘I saw a lion,’ wrote Livingstone, ‘sitting on a piece of rock, about thirty yards off. . . . I took a good aim at him through the bush and fired both barrels. . . . I saw the lion’s tail erected in anger, and . . . turning to the people, said Stop a little till I load again. When in the act of ramming down the bullets I heard a shout, and looking round,

I saw the lion in the act of springing upon me. He caught me by the shoulder and we both came to the ground together. Growling horribly, he shook me as a terrier dog does a rat. As he had one paw on the back of my head, I turned round to relieve myself of the weight and saw his



ABOUT TO SPRING!

A magnificent African lion, crouched exactly as a cat crouches when about to spring.

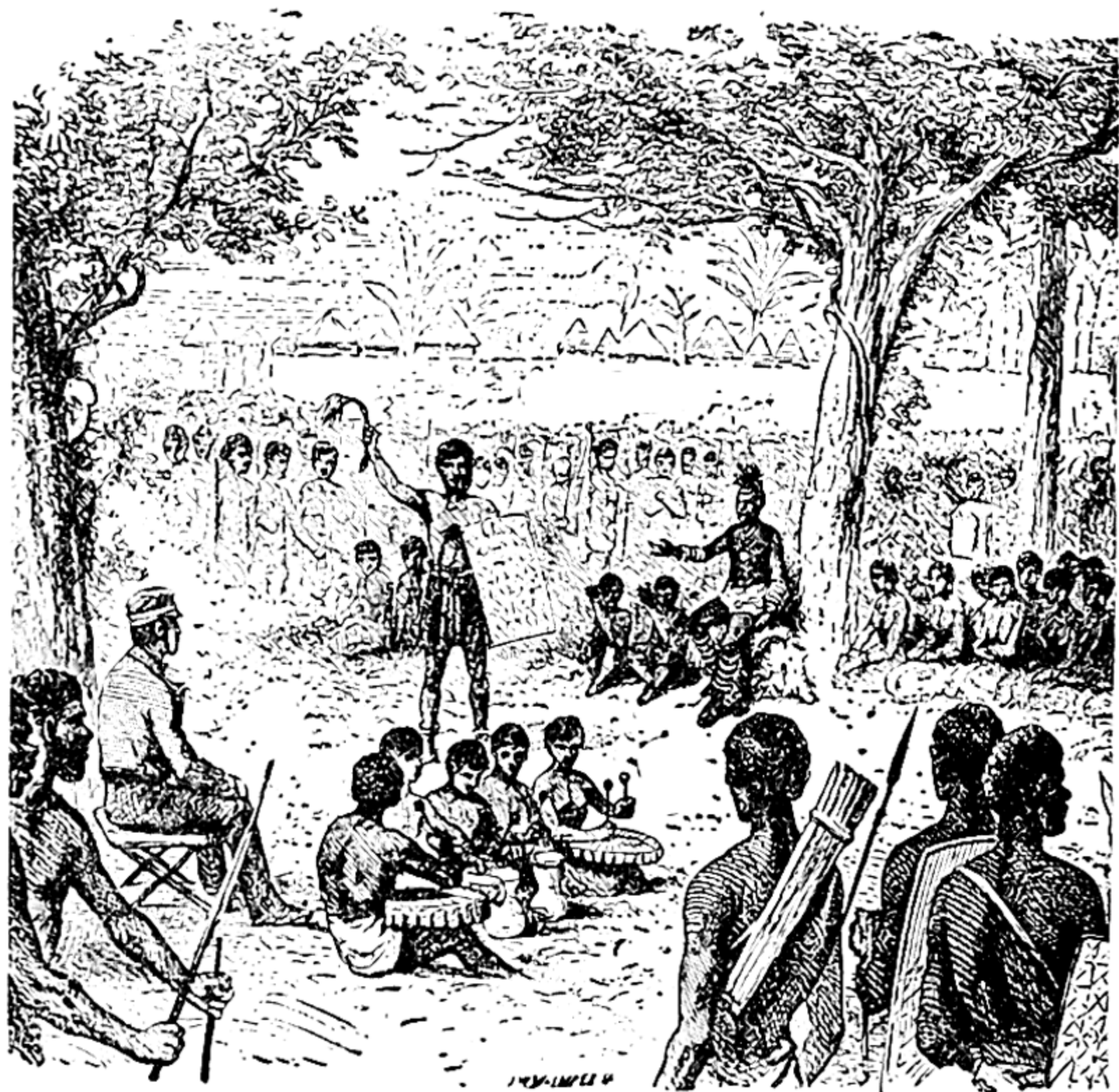
eyes directed to Mabalwe, who was aiming at him from a distance of ten or fifteen yards. . . . The animal immediately left me to attack him and bit his thigh. Another man whose life I had saved . . . attempted to spear the lion, upon which he turned from Mabalwe and seized this fresh foe by the shoulder. At that moment the bullets the beast had received took effect and he fell down dead. . . . Besides crunching the bone into splinters, eleven of his teeth had penetrated the upper part of my arm.'

Livingstone had been told of a fertile, well-watered

country that lay to the north, and this he resolved to explore. But first he and his companions had to cross the Kalahari Desert. It stretched, it seemed to them, endlessly: dry, hot, dusty. Sometimes they could get no water till they had dug a well six feet deep, and waited for it to fill up—and this was in terrible heat, with the sun beating down upon them from a cloudless sky! There were few natives in this wilderness, for only the little bushmen, of the dwarfish bodies and straggly beards, could find food and drink. Yet Livingstone and his comrades went forward hopefully, for on the other side of the desert, they were told, were great lakes, like oceans, which no white man had yet seen. Sometimes they thought they had reached one of these lakes, for there before them lay a wide, glistening expanse; but as they drew nearer they would see that it was only a lake of salt, shining white in the sun. But they were not discouraged, and at last the day came when they saw before them a stretch of real water, 'resembling the River Clyde above Glasgow,' and following the stream came to a 'fine sheet of water'—Lake Ngami.

From Lake Ngami Livingstone went on to the town of Linyanti, which stands not far from the mighty River Zambezi, and which was ruled by the friendly chief Sekeletu. Here he stayed for some time, making plans for a further journey. There must be, he thought, some easier way of getting to this well-watered country than by crossing the desert. He would go westward till he reached the Atlantic, and so he would discover a new route by which white men could come and go.

This journey led Livingstone through country very different from the Kalahari Desert. Gone were the salt



LIVINGSTONE RECEIVED BY A NATIVE CHIEF

From his *Missionary Travels*.

The native band consists only of drums—the first musical instrument of primitive peoples.

lake and the dry stretches of sand; now he had to find his way through a dense forest, in whose depths lurked poisonous snakes. He and his men set off in canoes to paddle up the Zambezi, taking with them supplies of biscuits, tea, sugar, and coffee.

After they had travelled for some weeks by canoe, Livingstone found himself in a country ruled over by a queen. She did not wish him to go farther by water, and she gave him an ox on which to ride, and sent her daughter to guide him to the next tribe. The daughter was attended by her husband, her drummer, and a large

retinue, and she walked so fast that Livingstone and his men could hardly keep up with her.

The tribe to which the princess guided them was friendly, and the chief Shinte received Livingstone with great ceremony. His throne was covered by a leopard-skin, he wore a checked coat, a scarlet kilt with green edges, a bead helmet with a great plume of feathers, and on his arms and legs he had countless bracelets and bangles. In return Livingstone unpacked his magic lantern, and showed some slides to the natives, who gazed open-mouthed at his wizardry.

The next part of the journey had to be made on the back of oxen. But the land through which they passed was the home of many insects. Among these the most horrible were the 'tsetse-flies,' with their curious buzz and their brown-and-yellow bodies. The bite of these flies was death to ox or horse or dog.

The climate was wet and hot, and brought on fevers from which Livingstone was never free. One of the greatest difficulties he and his men had to face was the crossing of marshes, stretches of mud and water, where sharp-edged reeds cut through their clothes, and matted creepers held them back. In these swamps lived the hippopotamus and the crocodile. Still more depressing was the sight of gangs of helpless negroes, whose legs and arms were chained so that they could not run away. These slaves were sometimes fastened by the neck to logs of wood, which made it difficult for them to move, but the slave drivers had no mercy and flogged them if they did not go fast enough. If a slave fell exhausted he was left to die of hunger, so that the track of the slaver was marked by the bones and skulls of his victims.



FETTERED SLAVES LEFT TO DIE

From Livingstone's *Last Journals*.

On the skyline the jackals hungrily gather.

One day the travellers reached a wide river. The best way of crossing such a river was to dismount, hold on to the tails of the oxen, and be pulled across. But Livingstone's ox dashed headlong into the water before he had time to get off, and next moment his horrified servants saw him struggling in deep water. But Livingstone had not forgotten his boyhood's adventures in the Clyde, and after he had safely reached the other side, he was delighted to hear the admiring natives say, 'We can all swim. Who carried the white man across the river but himself?'

As time went on Livingstone suffered more and more from fever and from hunger, till at last he was almost a walking skeleton. He and his men were indeed glad when they saw traces of cultivation, and realized that they had reached the borders of the Portuguese colony of West

Africa. Through that fertile land they went till at last they saw before them a wide sea—they had reached the Atlantic. Soon they came to the Portuguese capital, Loanda. Livingstone knew that only one Englishman lived in Loanda, and he wondered what kind of a man he might be. Would he be pleased to see such a tattered, thin, sick explorer? But Mr. Gabriel was not only glad to see Livingstone, he gave him his own bed to sleep in: 'And,' wrote Livingstone, 'never shall I forget the luxuriant pleasure I enjoyed in feeling myself again on a good English couch, after six months sleeping on the ground.'

Livingstone could have returned to England by sea from Loanda, but he would have had to leave his native servants behind, far from their own home, and he was afraid that if they tried to go back without him they would be captured and made slaves. So he made up his mind to return with them to Linyanti.

Once again he and his men had to make their way through swamp and forest, where Livingstone's fine riding ox, Sindbad, died from the bites of tsetse-fly. Even when they reached the river their troubles were not over, for as they were paddling along quietly an ill-natured hippopotamus suddenly thrust out his head and upset Livingstone's canoe. His servants were indeed glad when they reached their own country, and he tells how the women came dancing to meet them, and how the men thought they had returned from the dead. His servants 'decked themselves out in their best, in suits of white and red caps which gave them rather a dashing appearance.'

Livingstone stayed at Linyanti till he felt well enough to start on another journey. The way from Linyanti to the coast westwards had been difficult and dangerous;

now he wanted to find out if it were not easier to go eastwards, to follow the Zambezi to the Indian Ocean. The chief Sekeletu gave him three riding oxen and an escort of one hundred and twenty men.

As Livingstone had heard many stories from the natives about the great Zambezi River, especially of 'the smoke that sounds,' he wanted to find out what these stories really meant. So he embarked with a few of his men in a canoe, and floated down the river while the rest of the party went on eastwards by land. But the Zambezi flowed so swiftly, and foamed so fiercely over the rocks, that soon he had to land. The roaring of the river grew louder and louder as he walked beside it, till it sounded like thunder. Before him Livingstone saw a deep, mysterious chasm in the rock, into which the huge river hurled itself. Clouds of spray rose above the chasm, and the river was arched by two rainbows. Here, said the natives, lived God himself.

Livingstone was paddled across in a light canoe to an island in mid-stream from which he had a view of this terrifying gulf. 'It is as though the Thames at London were to plunge into a chasm and be carried along some thirty miles . . . seething and roaring between steep banks or black basaltic rock.' He had discovered the stupendous falls which still bear the name he gave them, the 'Victoria Falls.'

From the Victoria Falls Livingstone went on eastwards towards the mouth of the Zambezi. Food was scarce, and he and his men had to live on what they could shoot. Sometimes they were lucky enough to kill an elephant, and then there was plenty to eat. News of Livingstone's expedition had reached the Portuguese who lived on the east coast of Africa, and they sent out a band of men to meet him.



THE VICTORIA FALLS

This section is known as the 'Rainbow Falls'—no need to ask why.

As Livingstone and his men were plodding on, tired and hungry, they saw the little party of Portuguese, who carried with them a sedan-chair. In a few moments Livingstone was being carried in triumph to eat 'the most refreshing breakfast I ever partook of.' Soon he was again in sight of the sea—this time, the Indian Ocean. He had found the way by which white men could reach the interior of Africa, and he himself had crossed Africa from sea to sea, from west to east.

Livingstone wished to explore farther; but first he had

a great work to do, to let people in Britain know about the slave trade. So when he heard that a British ship had called in at the little town in which he was staying, he said that he would go back in it to England. His servants he left behind, telling them that he would return for them. For three years they waited, knowing how utterly they could trust him, till he came back as he had promised.

When Livingstone arrived in England, after an absence of sixteen years, he found that he was famous. Queen Victoria herself sent for him to come to Windsor Castle and tell her of his travels. All over the world people spoke of the mill-boy who had become a great explorer. Livingstone was glad of this, because it made it easier for him to interest people in the slave trade. So hard did he work, by speaking and by writing, that men throughout the world determined to heal this 'open sore of slavery,' and to-day on the site of the old slave market in Zanzibar, where many a negro was sold to torture and death, there stands a Christian cathedral.

Livingstone did not land at Capetown when he returned to Africa. Instead, he went to the mouth of the Zambezi. With him he took a steam launch which had been made in pieces so that it could be packed on board the big steamer, and, when Livingstone needed it, unpacked and put together.

In this little ship Livingstone sailed up the River Shire which flows into the Zambezi not far from the sea. But when he had gone some two hundred miles the river flowed so fast that the ship could go no farther, and Livingstone must go on on foot to search for a lake of which the natives had spoken. For a month he marched

northwards till he came in sight of Lake Shirwa, 'a considerable body of bitter water, containing leeches, fish, crocodiles, and hippopotami.' No European had ever seen this lake. Livingstone was not contented, for he had heard that to the north of Lake Shirwa lay another, greater lake. Once again he set out, and presently arrived at a stretch of water bounded on the east by the range of mountains which is now called after him 'the Livingstone Range.' He had arrived on the shores of Lake Nyassa. 'How far is it to the end of the lake?' he asked. 'A boy would be an old man before he reached the other end,' answered the natives: actually the lake is 350 miles long.

When Livingstone returned from Lake Nyassa he began to plan another journey. He had crossed Africa from west to east, now he wished to cross it from south to north. Somewhere to the north of Lake Nyassa, he thought, must be the source of the River Nile. If he reached the Nile it should not be a difficult task to sail down it and arrive at the Mediterranean. So he made preparations for what was to be his last journey.

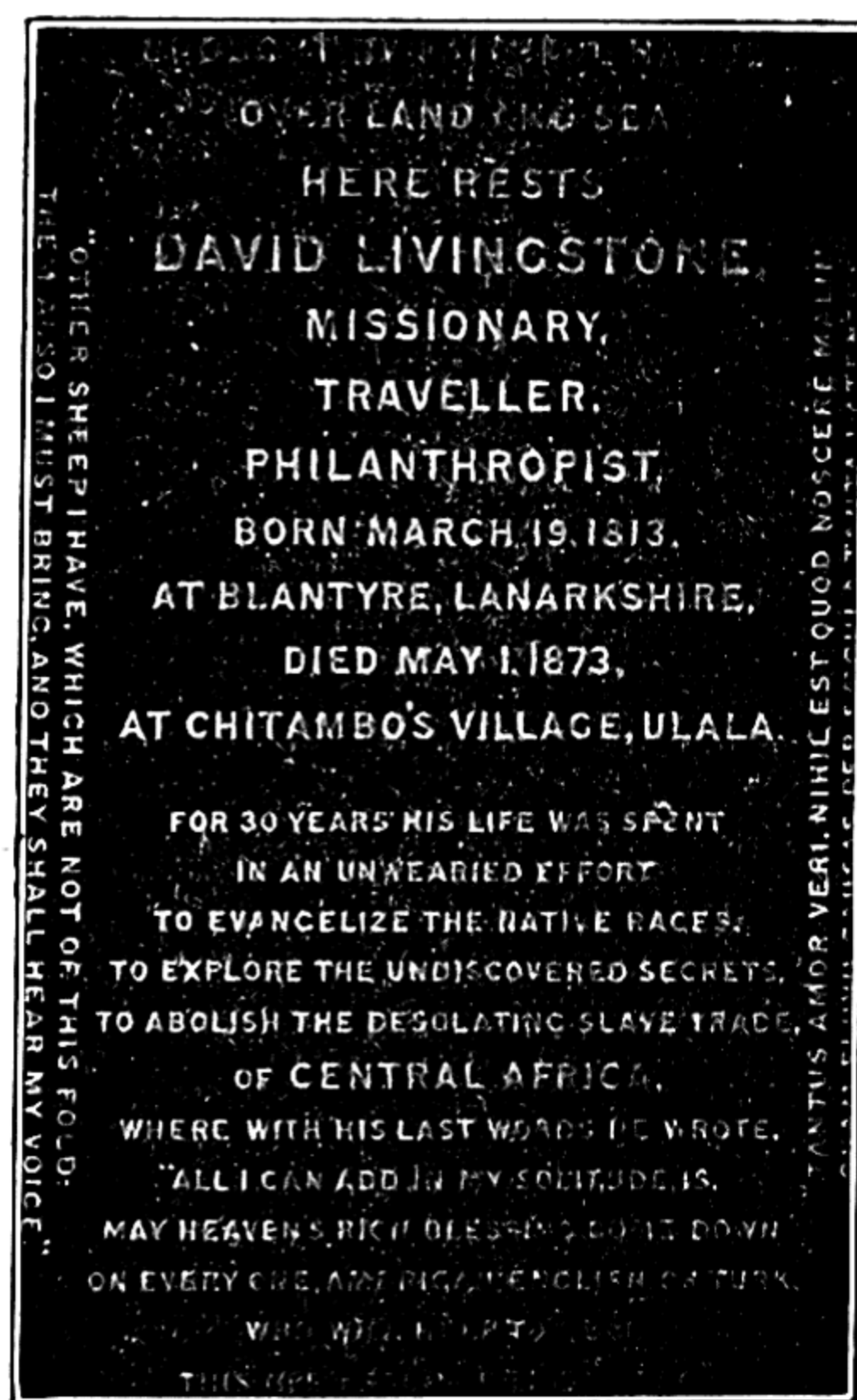
This time he started from the east coast of Africa to reach Lake Nyassa, and then went northwards in search of the mysterious source of the Nile. On this great quest he took with him buffaloes, mules and donkeys, so that he might see if any of these would not be harmed by tsetse-fly. He also took a poodle called Chitane. Chitane was a faithful dog, who guarded Livingstone's hut by night, and all day ran up and down the lines of men and animals, barking at the last of the line to hurry him up, and driving away all other dogs.

But the men who went with Livingstone were not all as faithful as Chitane. Some were lazy and disobedient, and

so cruel to the animals that Livingstone had to send them back. It was very difficult to get other men to carry the loads, for the slave traders had carried away all the strong

men, stolen the food, and left the weak to starve. The country was unhealthy, 'dripping forests and oozing bog.' Food ran short, and they could get nothing to eat but a little maize and goats' milk. Then the goats were stolen—and so there was no more milk. Worst of all, some of the men ran away, taking with them the medicine chest, and now Livingstone was left in this swamp of fevers without any remedies.

One day, as they were crossing a



LIVINGSTONE'S TOMB IN WESTMINSTER ABBEY

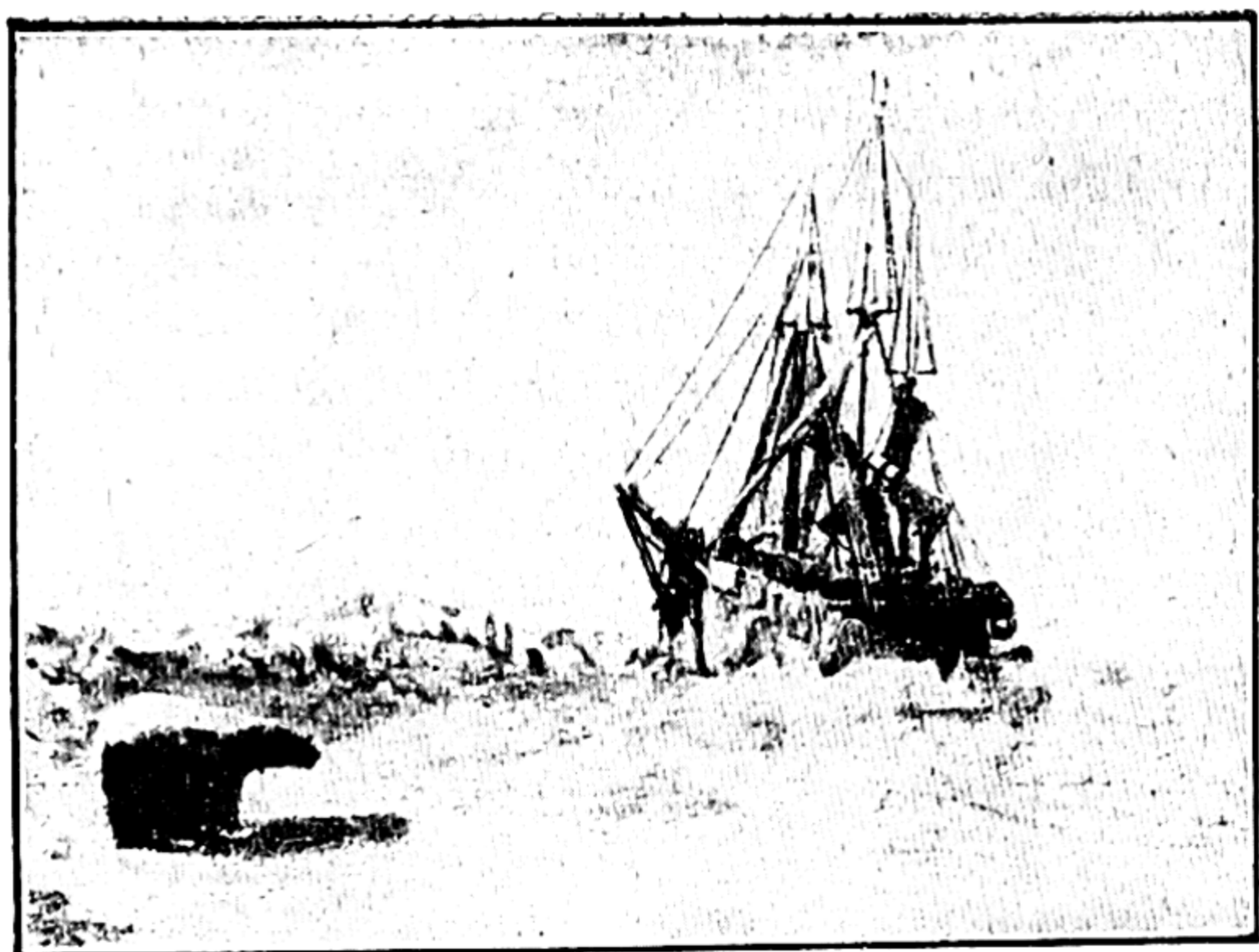
flooded river, Livingstone lost sight of Chitane, and asked the men where he was. The men said that he had swum as long as he could, and they 'supposed he must have sunk.'

For four years no news of Livingstone had reached the outside world. At last an American, Henry Stanley, was

sent to Africa to find out what had happened, and whether Livingstone were alive or dead. After many months of travelling, Stanley heard rumours that a white man was alive, a few days' march away. Livingstone tells in his diary how, when he was almost dying of fever and of hunger, his native servant came running to tell him of the arrival of a white man. With the Stars and Stripes flying before them, carrying their tin baths, silver spoons, and enormous cooking-pots, Stanley and his men marched into Livingstone's camp. Stanley was a shy man, and did not know how to introduce himself to Livingstone, so, instead of showing how excited he felt, he walked slowly up, took off his hat, and said, 'Dr. Livingstone, I presume?'

Stanley's work was done. He had found Livingstone; now he had to go back and tell of his success. He begged Livingstone to return with him, but the great explorer refused—he had not yet found the source of the Nile. Sorrowfully Stanley left him. For nine months, ill and starving, with no white man near him, Livingstone travelled through the endless swamps. One day his servants found him, in his hut, dead.

Two of his faithful servants, Susi and Chumah, could not bear to bury him so far from his home. For nine months they marched westwards through swamp and desert, hungry, ill, attacked by enemies, carrying with them the body of their dead master. At last they came to the sea, and the body of David Livingstone was borne across the Great Waters till it reached England, and was buried in Westminster Abbey—but his heart lies in Africa.



THE *FRAM* IN THE ICE
From a drawing by Nansen himself.

CHAPTER XI

FARTHEST NORTH AND FARTHEST SOUTH

§ 1. *NANSEN*

'Au jana! Aua! Oha! Haq!
And the yelping dog-teams go,
And the long whips crack, and the men come back,
Back from the edge of the floe!'

NEAR the beautiful city of Oslo, amidst the high, forest-clad mountains, there lived a boy called Fridtjof Nansen. He loved the open air, and spent his boyhood among the woods and hills that surrounded his home. In summer he fished and swam in the rivers, or roamed through the forests, while in winter, when the rivers were frozen and the mountains covered with snow, he skated and sledged and went on ski-ing expeditions.

One summer a boat was leaving for the coast of Green-

land on a sealing expedition. Nansen went with it, and so began his first adventures in the Arctic. Nansen lost no chance of studying the birds and animals of these northern shores. Often they came across polar bears, and many exciting adventures they had. Swimming across icy pools, jumping from one ice floe to another, or shooting bears, filled the days with excitement and adventure. Soon the sealing expedition was over, and the ship returned to Norway; but Nansen thought often of Greenland, and at last made up his mind to explore the land for himself.

The coast of Greenland is blocked by huge masses of ice, towering high up in the air. All round the shore the ice is continually moving, and often a tremendous roar like the noise of thunder, which echoes and re-echoes amidst the icy cliffs, tells of another great mountain of ice breaking from its home on the coast and crashing into the sea. Down it goes, rumbling and roaring, till it falls into the sea with a mighty splash. So tremendous is the force of it that it disappears for a minute or two, and then up it comes, rocking and rolling, and steadies itself in its new home, the water pouring down its sides. Presently it moves slowly away—an iceberg. From the shore the ice slopes upwards until it reaches the centre of Greenland, where the ridge of ice is of immense thickness; then it slopes down again to the opposite coast.

That was the country that Nansen fitted up an expedition to explore, and before long he was coasting up the eastern shores of Greenland, looking for a suitable place to land. At last he and his men left the ship, and started off on their journey. The Arctic wind blew strong and cold, terrible storms overtook the men, and sometimes they were forced to stop and seek refuge in their sleeping bags.

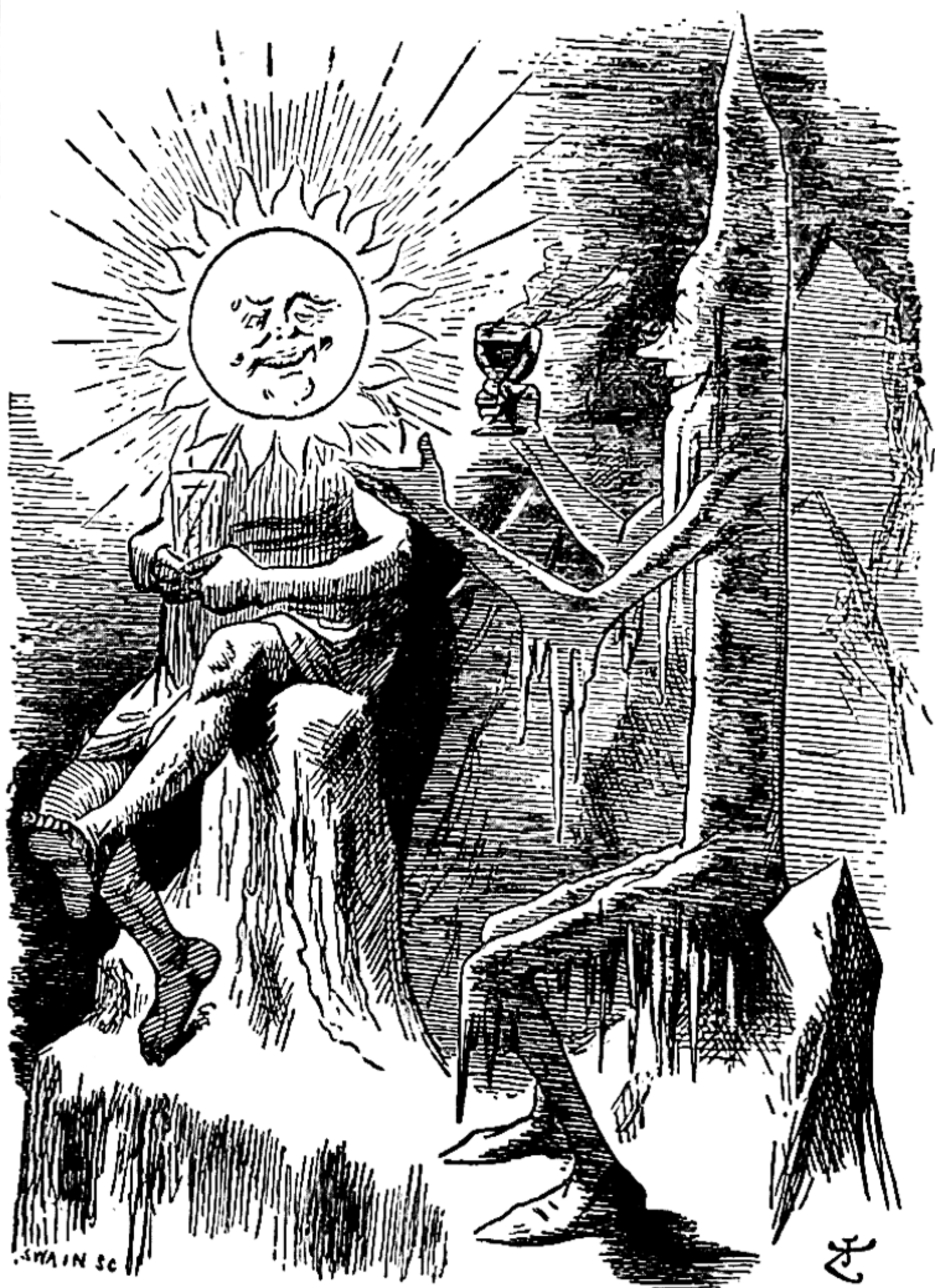
Every drop of water had to be melted—and even then it turned to ice again in a moment or two! At last they reached the ridge which told them they were half-way across, and now the going was easier, for the ground sloped towards the west. Sometimes a great crevasse stretched in front of them, and then they had to go carefully. But at last the west coast was reached, and Nansen and his men arrived at the little port of Gotthaäb, where they stayed for the winter among the Eskimos.

Before many years had passed Nansen was again setting out for the north. This time he meant to reach the North Pole. A little boat called the *Fram* was built, with sides two feet thick and specially made to resist the ice; and on a beautiful summer day in the year 1893 she steamed away from Oslo.

Northward she sailed till Nova Zembla was reached. Then she coasted along the mainland, where the little wooden church stood—the church that Nordenskiöld had seen on his way to the east—past a village where sledge dogs were taken on board, past a whaling vessel, and then for three years the *Fram* was out of touch with all communications.

Winter came on, and in the midst of the snow and ice the boat was frozen in. Darkness fell, and remained—the long northern winter; and only a red glow in the sky, away on the south-western horizon, told that the sun would return.

At length winter passed and the ship began to drift among the great ice-floes. Nansen chose one of his men, and together they left the ship to reach the North Pole by sledge. Huge ridges of ice blocked their way; gigantic masses of ice lay all around them. Boldly they kept on, however, their clothes frozen stiff, their hands suffering from

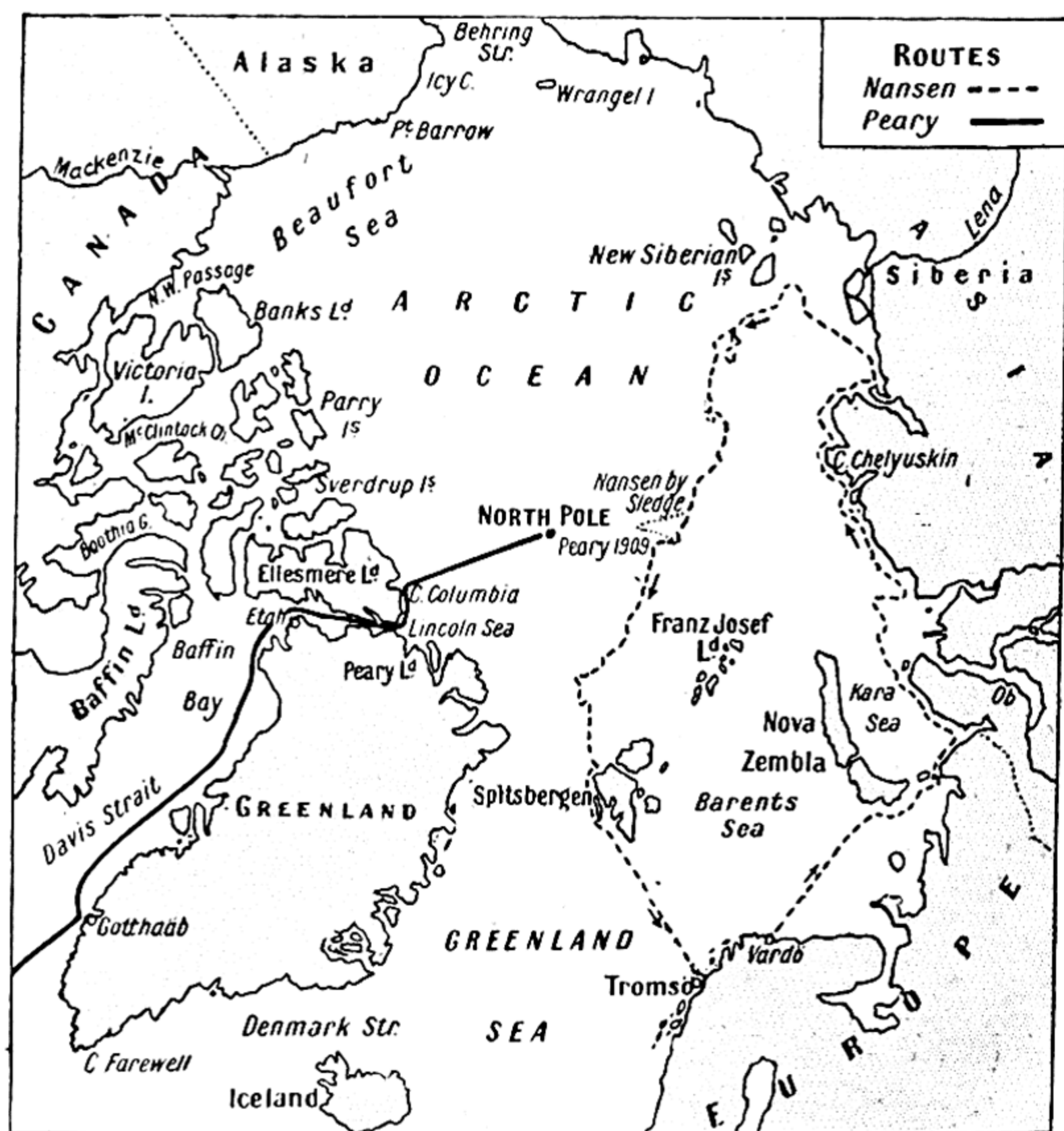


'FAR FROM THE MADDING CROWD'

The North Pole. 'Your health, Sunny! With all their boats, balloons, telescopes, and things, they ain't found *us* out yet!'

A cartoon from *Punch* of 1896, showing the North Pole boasting of the failure of Nansen's expedition to reach it.

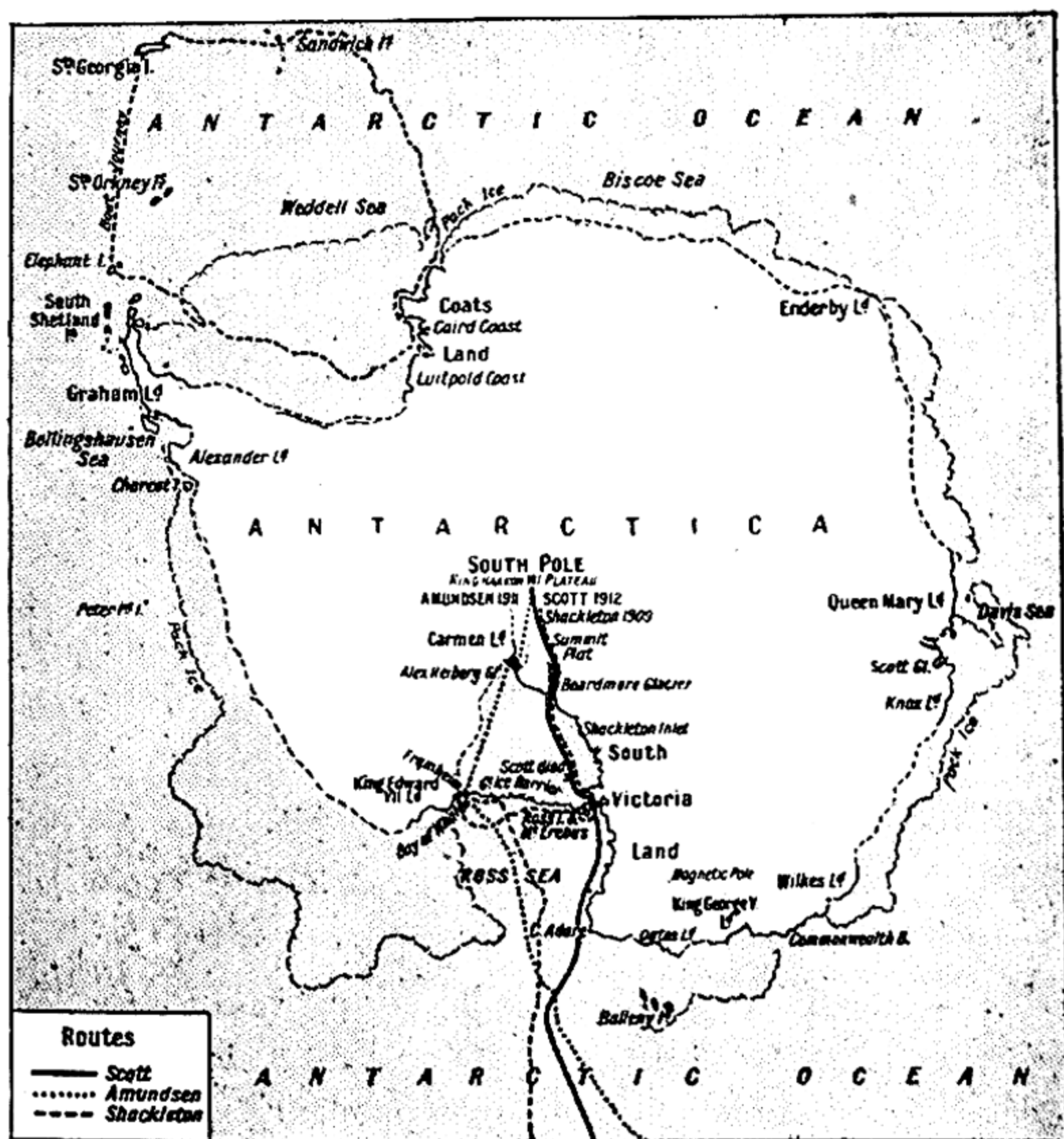
150 FARTHEST NORTH AND FARTHEST SOUTH
 frost-bite, their food running short, eager only to reach the Pole. But the task was too great, and they had to turn back. The ice was impassable, their dogs had been killed for food, and unwillingly they set off for the south.



Luckily they came across some seals, and these saved them, for now they had plenty of food. For a whole winter the two men stayed on a lonely point of land, and had many adventures with walruses, bears, and foxes; but again winter passed, and again they went on. Sometimes

they travelled by sledge, sometimes by the kayaks which they carried with them, and often they were nearly stranded on an ice floe.

One morning to their surprise they heard the barking



of dogs, and before long an English explorer was walking towards them. 'Aren't you Nansen?' said the Englishman. 'Yes, I am,' replied Nansen. And so Nansen returned to the world, and before long he was sailing home to Norway. He had been farther north than any one else had ever been before.



TRAVELLING UNDER DIFFICULTIES

A picture that gives some idea of the immense task undertaken by Arctic explorers, who may have to traverse ground like this hour after hour, up and down slabs of ice many times larger than themselves.

§ 2. *PEARY*

ON a July day, the *Roosevelt*, flying the Stars and Stripes, steamed out of New York harbour and sailed north. Many times had Admiral Peary crossed the Arctic circle; he had discovered that Greenland was an island, and had spent years exploring the icy ocean round the North Pole. This time he meant to reach the Pole itself.

The ship pushed her way through the ice which swirled

and pressed around her—for they must get her as far north as possible. The winter was spent near Cape Columbia, four hundred and fifty miles from the North Pole. Preparations were made, food supplies laid in, and the Eskimos made skins and furs into clothing for the men.

Everything was ready by the 1st of March, and they set off, men with dog-sledges, party by party. After each journey of five days one party turned back, its supplies exhausted, till only the final party was left in the final dash to the Pole.

Peary was accompanied by his black servant and four Eskimos. They had five sledges, forty dogs, and food for forty days—and they had one hundred and sixty-three miles before them.

Narrow escapes on ice-floes, and drenchings, as they fell in up to the waist in the water between the ice-ridges, were daily happenings on the long journey. Their faces were cut with cold. 'The sky was a colourless pall, gradually deepening to almost black at the horizon, and the ice was a ghastly and chalky white.'

The going then became easier, the surface of the floes harder, but Peary was nearly exhausted. For the last eleven miles he harnessed a double team of dogs to his lightest sledge. He hardly dared to rest, for even yet the way might be blocked by open water; but at last on the 6th of April 1909 he came to his journey's end. In his diary he wrote, 'The Pole at last. The prize of three centuries. My dream and goal for twenty years. Mine at last!' Flags were then hoisted. Nothing but ice lay all around. Fear that the ice might break made them hurry away, and after sixteen days they reached Cape Columbia, and so home with the news to America.

§ 3. SCOTT

'The stark and sullen solitudes that sentinel the Pole.'

THE Antarctic Circle bounds a vast region of snow and ice. Across the whole of this the word 'Unexplored' was printed in the maps of less than a hundred years ago. A great floating wall of ice shut it off from the rest of the world, a wall that was two hundred feet high in some places, and stretched for hundreds of miles. Sometimes a sealer or a whaler would try to get through, and some explorers would actually land on the Great Ice Barrier and travel across its surface for some distance. These men brought home news of a great continent of snow and ice, with somewhere on it—the South Pole.

Through the ice of the Antarctic the *Terra Nova* was slowly making her way. Captain Scott was leader of the expedition, and he had set out to reach the South Pole. 'On all sides an expanse of snow-covered floes, a dull grey sky shedding fleecy snowflakes, every rope and spar had its little white deposit like the sugaring on a cake.' And there ahead of them rose Mount Erebus, the great volcano that stands on the very edge of the frozen continent surrounding the South Pole.

Scott chose as a landing-place a little bay, and soon every one was busy. The landing took a week, for ponies, dogs, and three large motor-sledges, as well as provisions and timber for their hut, had to be taken from the ship. The ponies enjoyed a roll in the snow after being shut up for weeks on board ship, and the dogs barked noisily. Groups of penguins, curious to see what was going on, waddled along to obtain a good view, and Scott says that they seemed to say, 'Hulloa! what do all you ridiculous

things want?' Then the dogs would make a rush—and the penguins would squawk angrily and wish they had not come so near!

Soon the large hut was erected, and tons of provisions were stacked neatly in front of it, and shelters for the ponies put up nearby. But there was much work still to be done, for sledges, clothes, and fur sleeping bags had to be overhauled, and animals exercised. Sledge journeys were made to test the surface of the

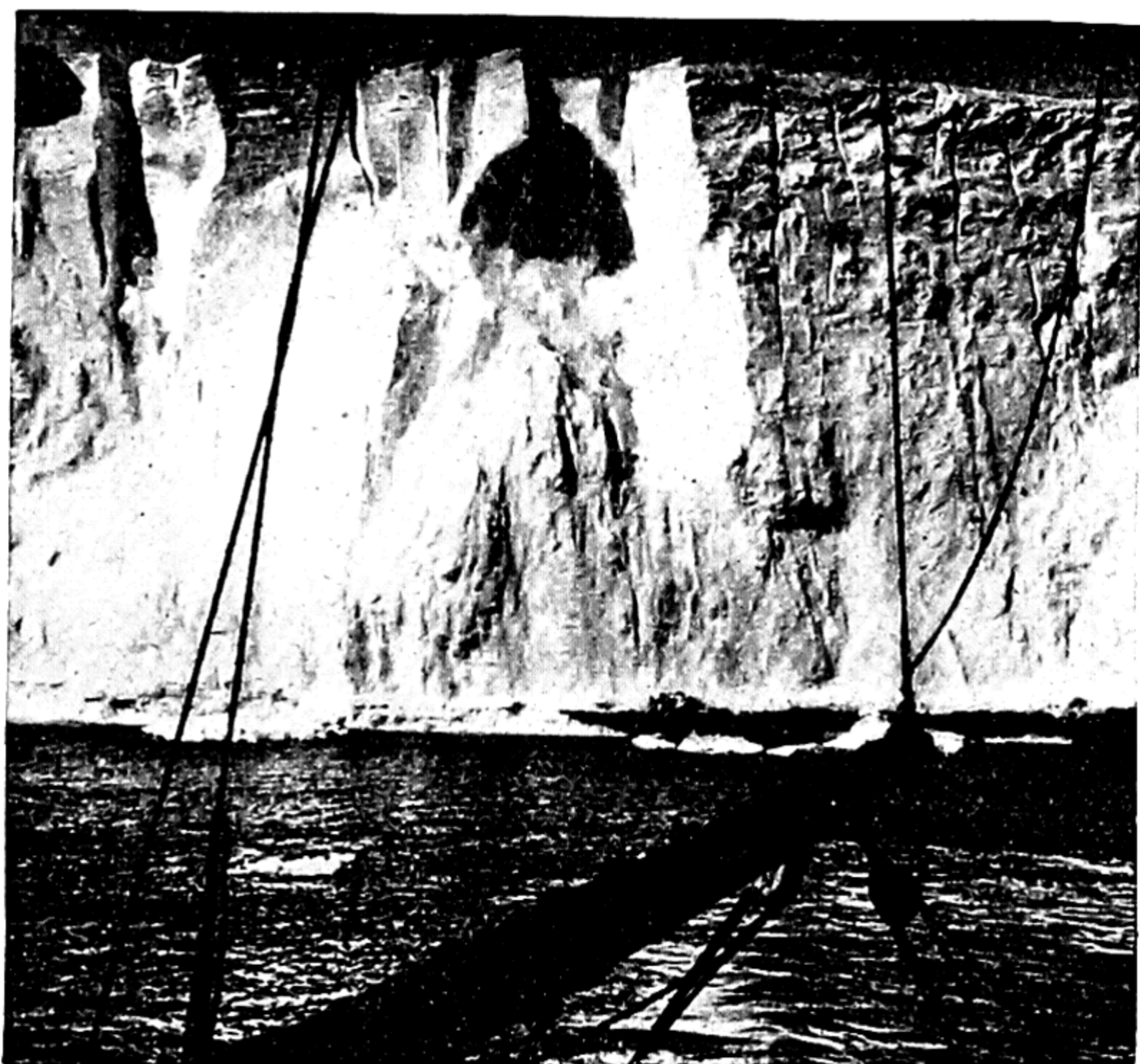


A PENGUIN

ground, and provisions were carried to various depots along the route the explorers were to take, in readiness for the long journey ahead of them. At nights the men talked and read by the light of blubber lamps or candles.

By April the light was going, and that meant the end of the sledging season. The sea was freezing, a light snow fell, and icicles were formed by the spray of the strong gales. Then came 'the last day of the sun, and a very glorious view of its golden light,' and after that the winter twilight (for in the south, winter occurs when we have summer). When July came there was enough light to see one's way about, a red glow showed through the haze, and by August the men were living again in a flood of sunshine.

Preparations were eagerly made for the long march to the South Pole, and by the first day of November everything was ready. The motor-sledges went first; but before long they developed engine trouble, and were useless.



THE GREAT ICE BARRIER

This breaks off into icebergs. Ships stop here, and the rest of the journey must be made overland.

Then came the ponies and dogs, most of them from Siberia, and the sledges laden with provisions.

Five miles brought them to the snow plain of the Great Ice Barrier, and things were going well with them up to now. But the weather soon changed, and before long blizzards were blowing. Fine powdery snow made progress difficult, and the ponies died one by one—the men could shelter in their tent, the dogs could curl up under the snow and lie in snug little holes, but the ponies had to face the blizzard. All the provisions had now to be hauled by men and dogs; but still the expedition hoped to cover fifteen miles every day.

After more than a month on the Barrier they at length reached the great Beardmore Glacier, up which lay the road to the Pole. At this point two men left with the dogs, and now all the sledge-hauling had to be done by the men. With every step they sank to their knees, and often they came to great crevasses where 'the light rippled snow-bridge gives no hint or sign of the hidden danger . . . till a man or beast is floundering and struggling for foothold on the brink.'

As they went up the glacier the snow became harder and the pulling easier, though in some places the ice was very rough. By the end of December they were nearly on the Summit, and early in January they had reached a height of over ten thousand feet. Then the last band of men returned, and the others went on—five of them, Scott, Wilson, Oates, Bowers, and P. O. Evans—their sledge packed with a month's food. The plateau was flat, and at first there was no wind. Soon, however, a blizzard began, and one valuable day had to be wasted, spent in the sleeping bags.

After the blizzard, the snow was soft, the marching difficult, and the pulling was heavy. The longest march they could do in a day was ten or twelve miles—and they were still eighty-five miles from the Pole. By this time they were descending slightly, but the ice became so rough that even on their skis the march was tiring. Cairns were built to mark the food depots which they left as they went along, and as the sledge was lightened it made the pulling easier at first. Later the surface of the ice grew worse, and a deep snow kept them back, or sometimes the sledge bumped along over hard ridges. At last came the day when Scott wrote in his diary, 'It is wonderful to think that two long

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marches would land us at the Pole. Only twenty miles from the Pole—we *ought* to do it now.'

The following day, Bowers, looking ahead, saw something that looked like a cairn. When they drew nearer they found 'a black flag tied to a sledge bearer; near by the remains of a camp; sledge tracks and ski tracks going and coming and the clear trace of dogs' paws—many dogs. . . . The Norwegians are first at the Pole. It is a terrible disappointment.'

On Wednesday, the 17th of January 1912, Scott wrote in his diary 'The Pole. . . . Now for the run home and a desperate struggle. I wonder if we can do it.'

The men built a cairn, and put up a Union Jack—and there it flew, at a height of over nine thousand feet at the South Pole. Then they turned back and faced eight hundred miles of solid dragging.

The weather was bad, gales blew almost continuously, and food was scarce; but on they pulled, trying to reach depot after depot where food, and, sometimes, fresh sledges were waiting for them. The end of the Summit Plateau was reached, and now came the journey down the glacier. The surface was changed. Where before had been loose snow there was now a polished surface, and thankfully they reached the cairns that pointed to the depots. The surface became rough again, however, and often the runner of the sledge would become clogged with snow, the sledge would upset, and the men would fall. Sometimes the surface was like polished glass and they could go along at a good rate; sometimes great cracks would appear and progress must be slow. Just at the foot of the Glacier, Evans collapsed and died.

Then came the last part of the journey over the Great

Ice Barrier; but the men were worn out by now with hunger and illness, and their fuel was nearly done. By the middle of March they were losing count of the days. One morning during a blizzard, while they were taking refuge in their tent, Oates—weak and ill, and knowing that he

I do not think I can
write more—

Robert Scott

Last Entry—

For God's sake look
after our people

FACSIMILE OF CAPTAIN SCOTT'S LAST ENTRY IN HIS DIARY

was a burden to the others—rose and went out, saying 'I am just going outside and may be some time.'

He died 'a very gallant gentleman;' but his sacrifice was in vain. Though the three men went on, the cold was intense, and the sledge seemed to get heavier. The weather grew worse, and another blizzard began. On the 29th of March, Scott made his last entry in his diary: 'We shall

160 FARTHEST NORTH AND FARTHEST SOUTH
stick it out to the end, but we are getting weaker, of course, and the end cannot be far. It seems a pity but I do not think I can write more.

Last entry.

For God's sake look after our people.'

Eight months later the tent was found, almost snowed up. On the spot a great cairn was built, with a rough cross on top made of the broken pieces of skis; and not far from their winter quarters another cross was erected, with the names of the men and the words:

'To strive, to seek, to find, and not to yield.'

§ 4. *AMUNDSEN*

'THE Norwegians are first at the Pole'—so wrote Captain Scott. . . . Stories of the Arctic had always interested Roald Amundsen. He had often read of the bravery and sufferings of Franklin, he had admired the courage of Dr. Nansen, his own countryman, and at the age of fifteen, he 'decided to be an Arctic explorer.' He learned to be a sailor so that he might navigate his ship; he studied science so that he might take scientific observations during the voyages; he left nothing undone to prepare himself for the work of exploration.

His first great adventure was his voyage through the North-West Passage, for early in his life he had decided to navigate these Arctic seas. At midnight in the middle of June, 1903, seven men sailed away in a small fishing smack called the *Gjoa*. Laden with provisions to last them for three years, they were weighed down almost to the water's edge, but cheerfully they sailed to the north-west. They stayed for two years in a little bay in King William's Island and

collected all kinds of scientific information. Then they sailed on. At last came the shout, 'A Sail! a Sail!'—and there in the west they could see a whaling vessel which had come through Behring Strait. The North-West Passage was conquered.

Amundsen was now determined to reach the North Pole, and for that voyage he obtained Nansen's own ship, the *Fram*. Just as everything was ready, however, suddenly there flashed across the world the news that Admiral Peary, an American, had reached the North Pole. Amundsen, undaunted, decided now to try for the South Pole.

About four hundred miles along the coast from the bay where Scott wintered before his last great journey, lay the Bay of Whales, and there Amundsen and his men landed from the *Fram*. Not five hundred miles apart wintered these two bands of explorers, each waiting for the twilight to pass so that they might begin their dash for the South Pole. Amundsen was sixty miles the nearer to the Pole, and he and his men were experienced skiers, and with him he had about a hundred dogs, for he relied on dogs rather than on ponies.

Before the final journey they had deposited three tons of food at depots, and set up shelters several days' journey apart on the way to the Pole. In the middle of October they set off, five men, fifty-two dogs, and four sledges. Before them lay many dangers—the terrible wind of the Antarctic, the crevasses, and the cold, though as each of the men wore six pairs of stockings they escaped frost-bite. On their journey they made one hundred and fifty snow-beacons, each six feet high, to serve as landmarks for their return. The dogs were in good condition and were fast



THE SOUTH POLE

A photograph taken by Amundsen of Oscar Wisting, one of the members of his party.

travellers. Sometimes the men went twenty-three miles in a day. At length they reached the Plateau which surrounds the Pole, and, with three sledges and six dogs to pull each sledge, they made the final dash.

On the 14th December, 1911, at three o'clock in the afternoon, the order 'Halt!' was given. *They had reached the South Pole!* The Norwegian flag was hoisted, and the land that surrounded the Pole was named King Haakon's Plateau. They camped for three days, and then left—exactly one month before Scott was to reach the Pole. The

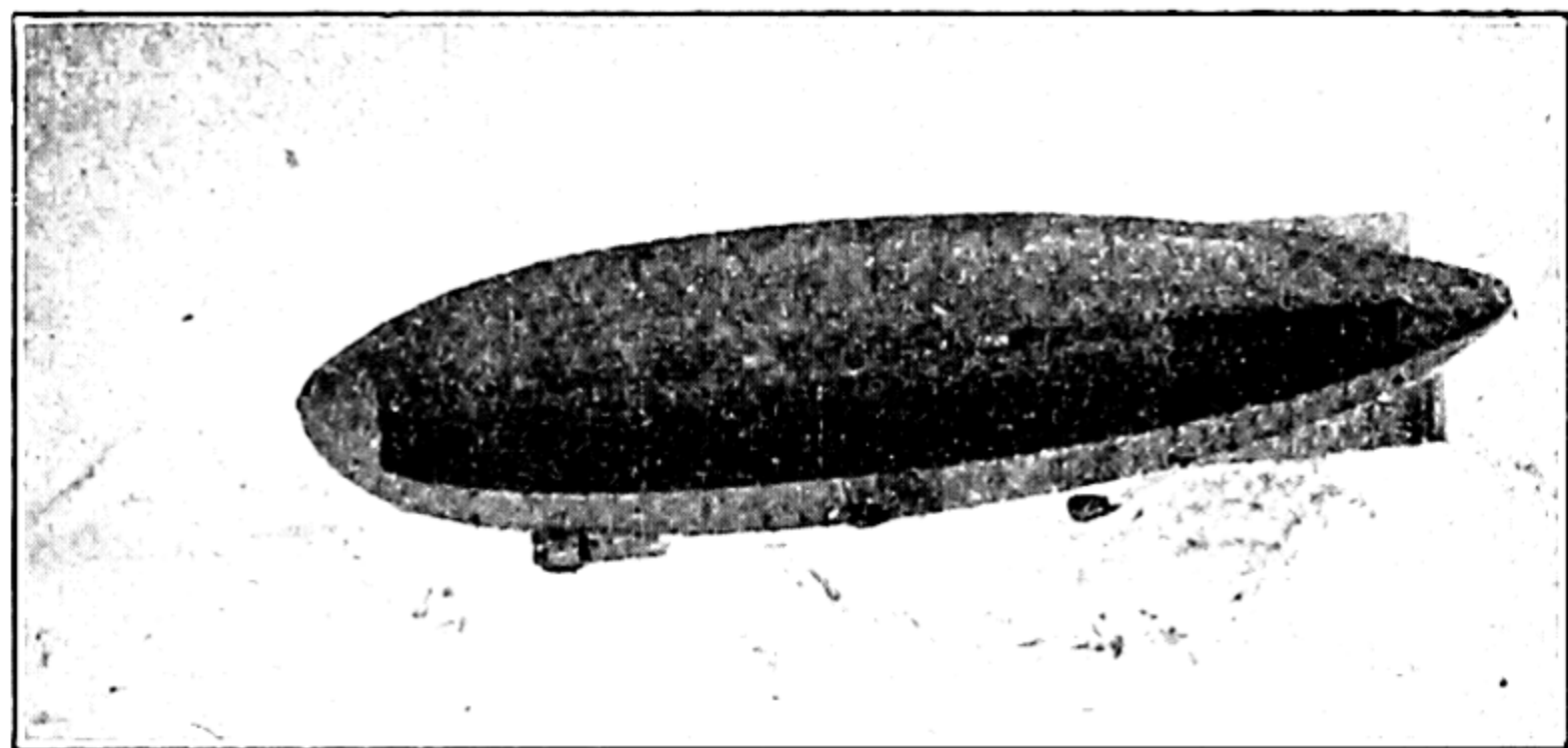
weather was good, the return journey successful, and Amundsen was soon back at Whale Bay.

Amundsen was now determined to fly across the Arctic Ocean, passing the North Pole on the way. He was accompanied by an American, Lincoln Ellsworth. Two flying boats, each with a crew of three, left Spitzbergen; but after flying for six hundred miles, they had to come down on the ice. One of the flying boats was useless. The ice was so rough that the other could not rise, and for nearly a month they worked at smoothing a path for it. At length the six men crowded into the cockpit of the remaining flying boat, and at the signal they began moving along the surface of the ice. With only a half hour's supply of petrol left, they at last saw far below them the peaks of Spitzbergen.

The following summer, 1926, in an Italian airship called the *Norge*, Amundsen again left Spitzbergen on a polar flight, and forty-two hours later they were on the north coast of Alaska. As they passed over the North Pole the American, Norwegian, and Italian flags were sent fluttering down, and the expedition flew home again.

Two years later, at daybreak on the 24th May 1928, an Italian airman, Nobile, flew over the North Pole in his airship, the *Italia*, with a crew of seventeen; but his triumph was short-lived, for on his return flight a terrible accident happened near Spitzbergen. The observation-car broke off and crashed with her crew on an ice-floe, and the balloon drifted off with a few men who were in the gangway and engine-room.

For two weeks no news of the disaster reached the outside world, but almost every nation joined in the rush to find out what had happened. Expeditions were being



THE *ITALIA*

A photograph at Spitzbergen—probably the last ever taken.

organized, whaling-vessels and ice-breakers were steering north, when suddenly there came a wireless message from Nobile asking for help. Full of hope the rescuers battled on. Other messages came. The world heard of the drifting balloon, of three men who had set out for the coast to get help, of the ever-growing peril of those left on the ice-floe.

But it needed more than brave men for the task of rescuing—it needed a man with a thorough knowledge of the Arctic, such as Amundsen: and Amundsen went. On the 15th June he took off from Spitzbergen in an aeroplane, the *Latham*. Days passed and there was no news of him. Some said he had gone in search of the balloon party, for they would be in the greatest danger of all, but no one knew. Sometimes there came faint wireless messages—too faint to be understood. That was all.

Meanwhile the other rescuers were succeeding. Nobile himself was the first to be rescued. Later, the other men on the floe were taken off safely by a Russian ice-breaker, while two of the coast party were also found. And then Nobile told the whole story. He told how he and his men had

watched the balloon drift for some miles and then go up in a mass of flames.

But Amundsen was lost somewhere in the Arctic.

§ 5. SHACKLETON

'The ice was here, the ice was there,
The ice was all around:
It cracked and growled, and roared and howled,
Like noises in a swound!'

ONE August day, amid all the gaiety of a yachting week, there steamed round to Cowes a merchant vessel. She was the *Discovery*, commanded by Captain Scott, on her way to the Antarctic (this was in 1901, before the *Terra Nova's* voyage). The junior officer on board was a young man called Ernest Shackleton, chosen 'mainly because of his knowledge of sails.' Shackleton was a sailor. He had rounded Cape Horn in a wintry blizzard, he had weathered the Cape of Good Hope in a gale that split the ship's sails, he had anchored in a swampy Indian river mouth where the fire-flies were 'like sparks from a blacksmith's shop,' he had voyaged to the old harbours of China and Japan.

The *Discovery* steamed south and reached New Zealand; from there she was steered for the Antarctic. Before long the expedition sighted ice, and soon they had reached the Great Ice Barrier. They sailed eastward till great masses of ice blocked their way. Scott called the land 'King Edward VII Land.'

Then they sailed back, and found an inlet in the ice, and there they landed. They had brought a balloon with them, and Shackleton now made an ascent. Anxiously he looked south, but he could see nothing but unbroken ice.

Soon the ship was frozen in for the winter. The icy ground was covered with ashes from Mount Erebus, a great volcano which stood near by, like a sentinel keeping guard over the *Discovery*. By April the sun had disappeared. Blizzards raged, a terrific wind blew, but at last a red glow in the north told of the return of the sun.

On a November morning, Captain Scott, Shackleton, and Dr. Wilson left the ship, and with three sledges and nineteen dogs set out for the South Pole. The ice was rough, the snow was soft and deep, and sometimes great crevasses appeared ahead of them. The glare of the snow hurt their eyes, the stinging wind cut them; and food was scarce, for travelling was slower than they had expected. The dogs were dying one by one, yet on went the three men, hauling their sledges over the never-ending snow. They were always hungry. Shackleton wrote, 'We always dream of something to eat when asleep.'

At last Christmas Day came, and, to celebrate it, a photograph was taken with the Union Jack flying. At dinner Shackleton produced a plum pudding weighing six ounces. He had hidden it away in his sleeping bag with a little bit of holly. 'It was a glorious surprise to them—that plum pudding—when I produced it,' he says in his diary.

They pushed on to the south; but as they plunged into a great snow gully, they saw before them a huge cliff of ice, more than seventy feet high. The way was barred, the land beyond was hidden from them, and they turned back, four hundred and sixty-three miles from the South Pole.

It was an August day, six years after the *Discovery* had sailed away. Again the sea round the Isle of Wight was gay with yachts, and again a ship steamed into their midst on her way to the Antarctic. She was a sealer

this time, called the *Nimrod*. King Edward and Queen Alexandra wished her success, as they had done to the *Discovery*, and the Queen gave to Shackleton, her commander, a Union Jack to be hoisted farthest south. As Shackleton took it, he was sure that the flag would one day fly on the South Pole itself.

Shackleton had spared no trouble in preparing for the expedition. Hardy little ponies were ordered from Manchuria, sledge dogs from an island off New Zealand,



MARCHING INTO THE WHITE UNKNOWN

The pony sledges of Shackleton's expedition.

sledges, furs, and sleeping bags of reindeer skin from Norway, and stores of all kinds from England.

Once more New Zealand was reached, and they were off to the south. Special stamps were given to Shackleton for use in the Antarctic—red penny ones of New Zealand, overprinted in green with the words 'King Edward VII Land.' Shackleton was to be postmaster of the unknown, uninhabited continent!

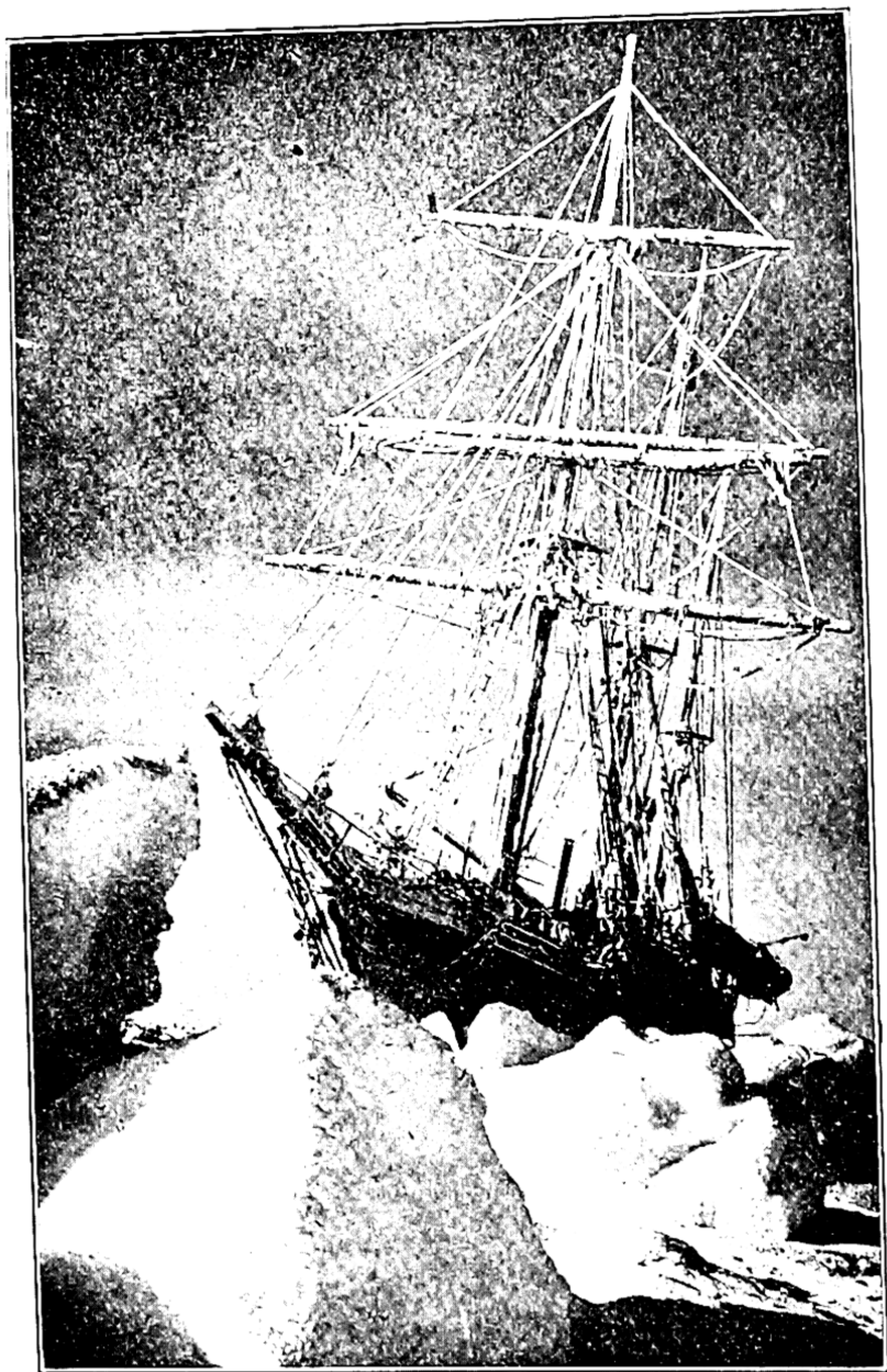
Soon they came to the Great Ice Barrier. They passed a bay, 'a very playground of whales,' which they called

'Bay of Whales,' and at length landed near Mount Erebus. The stores were taken off the ship, the ponies and dogs brought ashore, a motor-car, specially made for running on the ice, was landed, and the huts were put up. Then the *Nimrod* steamed away, leaving Shackleton and his fourteen men amid the snow.

Winter passed, and on a cloudless October day Shackleton and three of his men set out for the South Pole. Sometimes blizzards raged, sometimes the weather was so calm that Shackleton wrote, 'It is as though we were truly at the world's end.'

From time to time they left supplies of food for the return journey. Often the snow was deep and progress was slow; often they struck great patches of smooth ice, often a great crevasse would appear before them. Great cliffs of ice, thousands of feet high, gleamed in the distance, and between two of these, from some vast snowfield in the south, a great glacier came down and lay like a road to the Pole.

When they drew near the glacier, they found immense ice-ridges and deep crevasses. A cry of 'Help!' suddenly rang out, and on turning round they saw a sledge sticking up out of a crevasse with one of the men holding on to the sledge. Socks, the last of the ponies, had fallen down, and was lost far below. The work of hauling the heavy sledges was now left to the men. By Christmas Day they were nearly at the top of the glacier, their beards encased in ice, their clothes frozen stiff as suits of mail. Leaving the sledge, they made one last dash forward. Half running, they went on till they could go no farther, and on a January morning, 1909, they planted the Queen's Union Jack ninety-seven miles from the South Pole, and took the



THE ENDURANCE

Held fast in the ice prison from which she was never to escape.

170 FARTHEST NORTH AND FARTHEST SOUTH
plateau for Britain. With their powerful glasses they looked south, but they saw only a vast snowy plain. Somewhere on it was the South Pole.

Years passed, and both the Poles had been reached; but still the Antarctic lured men south. Shackleton set out on another journey, this time to cross the South Polar continent from sea to sea. His ship was the *Endurance*, and this time it was King George who gave him a Union Jack and wished him success.

He sailed across the Atlantic Ocean, sighted the coast of South America, then on, till a whaling station in South Georgia was reached and left behind. With twenty-eight men on board, the *Endurance* then crossed the Antarctic Circle. In a single day they saw five hundred icebergs. At length they reached the Great Ice Barrier and were frozen in for the winter. By spring the ice began to move, and, as it pressed closer and closer, the ship groaned and creaked. Three great masses of ice drifted towards her. She was held fast and crushed in their grip. Provisions were quickly removed and tents set up on an ice floe. Suddenly a crack appeared!—with a rush the men seized the tents and provisions, and made for the larger mass of ice before the crack should become too wide. Still the shrieking and groaning of the ice went on, and the awful crushing of the ship.

The floe drifted along, other cracks appeared, and each time another rush must be made so that all might be left on the same mass of ice; and at length they took to the small boats which they had saved from the wreck. After several weeks they reached Elephant Island. How were they to be saved? No one would look for them there, and South Georgia was almost a thousand miles away.

In desperation Shackleton set off with a crew of six in one of the boats, the *James Caird*, for South Georgia. It was their only chance. Fourteen days of hurricane and cold on a stormy ocean passed at length, the boat often engulfed in the hollow between two gigantic waves and caught in the full fury of the gale as she rose to the top again, with the sea surging round her.

One morning, through a break in the clouds, they saw the cliffs of South Georgia; but landing was difficult, for the sea was heavy and there was only one small break in the rocks. But at last they were on shore, and a thirty-six hours' march over high snowfields and glaciers lay before them. As they hurried down the last slope, their clothes tattered, their hair matted and long, two little boys from the whaling station saw them and fled in fear; but a warm welcome from the manager of the Station awaited them, and the luxury of a bath and dry clothes and food.

Some weeks passed before Shackleton was able to get a boat, but at last they reached Elephant Island once more, and as they neared the shore, Shackleton shouted, 'Are you all well?' 'All safe; all well,' came the answer.

One last voyage to the Antarctic was made by Shackleton in the autumn of 1921. In the *Quest*, he sailed from the Thames, again carrying the King's Union Jack. Again the shores of South America were reached and left far behind, and soon South Georgia came in sight. Shackleton went on shore to greet his old friends of the whaling station. Then he returned to the *Quest* to write up his diary. That night he died. The whole country mourned for him; vast crowds assembled at a service held in St. Paul's Cathedral; but Shackleton was buried in South Georgia amidst the snow and ice of the Antarctic.

CHAPTER XII

THE LAST SECRETS: MOUNT EVEREST

‘That vast sky-neighbouring mountain of milk-snow.’

§ 1. *THE RECONNAISSANCE*

FROM the plains of India a little party of men were looking northwards. Among them was one who was using a number of strange-looking instruments, and from time to time giving to his companions sums to do. This was Lieutenant Everest, whose work it was to plan roads, make maps, and measure mountains. The mountains he was then measuring were the Himalayas, the highest and the most mysterious in the world. No European had ever trodden their slopes, and many of the peaks were, so far as the British knew, unnamed, and were called only by numbers. One of them, a little white triangle, that lay far behind the others, was known as Peak 15. One day an excited Indian, who had worked for Lieutenant Everest, rushed into the room of the Surveyor-General of India, shouting, ‘Sir, I have discovered the highest mountain in the world!’ The sums were finished; Peak 15 had been measured and found to be over 29,000 feet high; and, in honour of the soldier who discovered its greatness, it is called to-day ‘Mount Everest.’

Many men longed to climb to the highest point of the earth’s surface; but Mount Everest lay in a mysterious, inaccessible country, into which no white man might enter—the closed land of Tibet. Beyond the Himalayas stretched this high, cold table-land; in the midst of it



THE LATE DALAI LAMA

The Tibetans believe that at his death the Dalai Lama's soul passes into the body of a child born at the same moment—and so his successor is always a new-born child.

stood the 'forbidden city,' Lhasa, where lived and ruled the Dalai Lama, 'the Ocean of Learning.' 'Upon a rugged mountain, the adorers of the Lama have raised the magnificent palace wherein their Living Deity resides in the flesh. This palace is made up of various temples; that which occupies the centre is four storeys high; it terminates in a dome entirely covered with plates of gold.' So wrote a French adventurer who, at the risk of his life, disguised as a Tibetan monk in yellow cap and gown, succeeded in reaching Lhasa. The Tibetans would allow no strangers to enter their land, and men gazed longingly from India across the boundaries of Tibet at the highest mountain in the world.

It was not till the year 1921 that the Dalai Lama gave permission to a British expedition to cross the frontier and

try to climb Mount Everest. He sent to them a letter, dated 'the Iron Bird Year,' in which he ordered all Jongpens and Headmen of the villages near which the expedition would pass to help them on their way to Chomo-lungmo 'the Goddess Mother of Mountains.' It was not engraved on a golden tablet like that which Kublai Khan gave to Marco Polo, but it was just as useful.

Preparations were made. Among the stores that had to be carried with them were stoves for cooking, fuel to burn, food, tents, blankets, sleeping bags, and ice-axes. The porters who were to carry these were used to going without shoes, but as it would be impossible for them to go barefoot among ice and snow they had to be provided with boots, and 'What a difficulty this sometimes proved to be, as often their feet were almost as broad as they were long.'

At last all was ready, and the expedition set off, nine Englishmen led by Colonel Howard Bury, and including the climber G. L. Mallory, with their porters, cooks, interpreters, and their mules. Upwards they went, through the hot moist forest with its brightly coloured creepers and scarlet flowers, till they reached the hills of Sikkim. Still they toiled on through the seven thousand foot 'hills,' by paths edged with wild rhododendrons, pink, white, yellow, till they left the valleys and trees and moisture behind, and came to the dry cold heights.

Far above them to the north loomed great snow-clad peaks. Here and there by the rough track they could see little villages of mud and clay, where lived a strong and hardy people, whose thick clothes and skin coats kept out the bitter cold. On their faces the women smeared grease and soot as a protection against the snow and the biting

winds. Sometimes the Tibetans did not live in huts but wandered from place to place, living in tents made from the hair of yaks. These yaks, strange, useful creatures, not only helped to clothe the people and make their tents, but carried their loads, and gave to them much of their food, milk, butter, and cheese. Every camp and every house



A TIBETAN WITH HIS YAK

This strange humped beast is found in no other part of the world. It is the Tibetan beast of burden.

was guarded by a large fierce black dog, and the British were glad to find that when they came near, the Tibetans tied up these dogs so that they would not attack the strangers.

Sometimes Howard Bury could see high on the slope of a hill some great monastery, where lived Buddhist monks, 'lamas.' He visited many of these monasteries, and tells how in one the Head Lama was persuaded to have his

photograph taken, 'dressed in robes of beautiful gold brocades, with priceless silk Chinese hangings arranged behind him. . . .' Tibetans who lived hundreds of miles away asked for photographs of the holy man, so that 'they would put these little photographs in shrines and burn incense in front of them.'

The Tibetans did not worship only in the temples served by these monks, temples lit by hundreds of lamps filled with melted butter. In the swiftly flowing mountain streams they set 'prayer wheels,' little wheels turned by the water, with prayers written upon them, so that as the water flowed the wheel was turned and the prayer was 'said.' At the top of mountain passes fluttered rags, and on these too were printed prayers, so that as the winds blew the rags the prayer might be 'said,' and evil spirits might have no power. The Tibetan thinks that in everything there is a devil—in river, in storm, in mountain; and, indeed, the mountains are so huge and so mysterious that it is not difficult for a superstitious people to believe that evil spirits dwell in these desolate gullies; and the fierce wind roars like the voices of demons, and blows not only snow, but often sweeps great sand-storms before it, and Howard Bury tells how the British had to put on goggles to protect their eyes and tie handkerchiefs over their mouths to prevent themselves from being suffocated.

The cooks who had gone with the expedition turned out to be worse than useless, and the bad food made every one ill, so that the English were grateful for the kindness of the Tibetans—though sometimes they found it difficult to feel as pleased as they seemed. Tea was given to them, 'Tibetan tea, made with salt and butter, and served up in agate cups with beautifully chased silver covers.' Once the



MOUNT EVEREST

A terrifying but beautiful picture of the tremendous precipices and fields of ice.

Governor of a district, the Jongpen, gave Colonel Howard Bury 'a dried sheep which looked very mummified and smelt very strongly,' and by another Governor, 'We were first given tea, milk and beer, after which some fifteen dumplings apiece each as big as a small apple.'

A month of marching brought them to the Kharta valley, which they chose for their principal camp. From this base men went out to explore the country, and to train the porters, who, though they were strong and active, and accustomed to hills, had no experience of ice and snow. Farther up the valley they put another camp, the '20,000 foot Camp,' from which they could start for days of dangerous climbing over glaciers and high ridges where one slip meant instant death. In this '20,000 foot Camp' they hoped to become accustomed to the great height. For, so far up, there is little oxygen in the air, breathing becomes gasping, fast, and exhausting, and sometimes men suffer from violent headaches and sickness. The climbers knew that this dreaded mountain sickness would get worse with every upward step they took towards the summit of Everest, 9,000 feet above them. They were to find that there are only two ways of dealing with 'mountain sickness'—either men must carry oxygen with them (and that is not easy, for the apparatus is heavy), or else they must accustom themselves to great heights by waiting for days or even weeks before they go any higher.

At the top of the Kharta valley was a huge glacier that flowed from Mount Everest itself. As the climbers went forward up this glacier they saw the tracks of wild animals. Most of these were the foot-prints of hares and foxes, but there were others of great size which did not seem to belong to any known animal. The Tibetans suggested that these

were made by Metohkangmi, 'The Abominable Snow Man.' He is fierce and hairy, they declare, and disobedient children are afraid of 'the Wild Man of the Snows' of whom they are told such terrible stories. The only way to escape from him, the parents say, is to run down hill, so that his long hair falls over his eyes and he cannot see you.

The Kharta Glacier led, the explorers found, to snowdrifts so steep that stores could not be carried up them. The party was not discouraged. There was another glacier that led towards Everest, and this Mallory explored to find a possible route. This glacier, the Rongbuk Glacier, is at the top of the Rongbuk valley which flows from Everest to the north-east. So deep is it that for long the explorers could see nothing but the cliffs on either hand. On they went, till, as they topped a rise, they saw before them, huge, dominating, terrifying, Mount Everest. 'Other mountains,' wrote Mallory, 'are visible, giants between 23,000 and 26,000 feet high. Not one of their slender heads even reached their chief's shoulder, beside Everest they escape notice.'

For twenty miles the party marched up the glacier, till they reached the mountain itself. This, Mallory was sure, was the only possible way to reach the summit. He climbed to a height of 23,000 feet, and looked along the north-east ridge to the summit: along that two miles of steep, snow-clad rock a man might go. . . .

But the time for climbing had come to an end. In October the monsoon, that great wind that brings rain to the parched plains of India, reaches the Himalayas. The mountains are hidden in clouds, snow falls, and it is impossible to climb. So the expedition turned back to India. The explorers had not reached the top of Mount

Everest, but they had done what they had come to do: they had explored and mapped the country, they had made friends with the people, and they had found out what route could lead them to success. They were resolved to return and conquer Everest.

§ 2. *THE EXPEDITION OF 1922*

NEXT year another expedition set out. This time the explorers knew their way, and could march direct to the Rongbuk Glacier. But the weather was bad, mist veiled the mountains, snow fell heavily. Still, Mallory was determined to make the attempt. With the help of the porters, camps were made one above the other; but, as the men were cutting steps up a steep ice-slope, an avalanche of snow thundered down upon them, and swept them away. None of the British climbers was killed, but seven of the porters were lost.

Twice, parties of climbers reached a height of 27,000 feet—less than 3,000 feet from the summit—and twice, cold, hunger, and exhaustion drove them back. The weather was becoming worse, the monsoon was approaching, and again the expedition was forced to return, disappointed.

§ 3. *THE EXPEDITION OF 1924*

Two years later, in 1924, the British again received permission from the Dalai Lama to send an expedition to Mount Everest. The only member of the party who had taken part in all three attempts was Mallory.

Up the now well-known route to the Rongbuk Glacier they went, to make their base camp at 16,800 feet up. Beyond this they planned to set up six camps, one beyond the other, where two or three men might spend the night in



TACKLING ONE OF MOUNT EVEREST'S ICE WALLS

By means of a rope-ladder—one man, having cut steps, climbs up to drop it down—well-laden porters can haul themselves up almost vertical slopes.

safety, in small tents, with a little food and the necessary sleeping bags. From the last of these camps the final climb would be made to the summit.

It was no easy matter to make these camps. To reach them, terrifying slopes of ice had to be climbed, so steep and slippery that every footstep must be cut. Wide expanses of snow had to be crossed, in which sometimes they would come to a gulf that could not be crossed till they had found a bridge of snow. In one of these an Englishman nearly lost his life, for the snow-bridge was too weak to bear him. He fell through, and was only saved by his ice-axe which caught on the edge of the gulf. There he hung, over a bottomless chasm; his companions had gone on, and there was no help; but his ice-axe held firm, and with a tremendous effort he managed to climb up it and gain the snow.

But where men could climb, cutting their way with axes, it was not always possible for porters to go carrying loads upon their backs. So, in order to set up Camp III on a little ledge above a precipitous slope, the Englishmen climbed up and let down long ropes, and to these the loads were tied and dragged up. By the time the Third Camp had been set up almost all the porters were exhausted, and fifteen alone did the rest of the work. From their determination and courage these fifteen were nicknamed the 'Tigers.'

The first attempt to reach the summit was almost disastrous. A blizzard swept down, and a little party of weary men had to spend forty-eight hours in the slender protection of the canvas tents that formed Camp III at a height of over 21,000 feet. In the morning, cold, wet, sleepless, the exhausted men thought longingly of tea, and were astounded and heartened to hear that one of the porters

had succeeded in cooking breakfast on a little stove. But the longed-for meal turned out to be 'monkri,' or macaroni, and it was not till an hour of dreary waiting had passed that each got a mug of hot, comforting tea.

Downwards they stumbled in a temperature of 39 degrees of frost. One man was badly frost-bitten, but he did not grumble at the pain, for he knew that they were lucky to be still alive.

The first great effort to gain the summit was made by Dr. Somervell, the artist of the expedition, and Brigadier Norton, who tells the story. They made their plans carefully. To the highest camp, 28,000 feet above sea-level, they carried their stores, the sleeping-bags, food, stoves and fuel, and there they spent the night, sleepless, breathing with difficulty in that high atmosphere. Early next morning they started off, but Somervell was ill, and had to turn back. While he made his slow way towards the little camp, Norton pushed on alone along the ridge. Every step required care, for the slope was steep, the rocks lying like the tiles on the roof of a house, and snow lay upon the surface. And always the wind blew. The temperature was low, Norton was weak and cold, breathing was difficult. In one hour he climbed only 100 feet. The day wore on—to be benighted on the ridge was certain death, but he had come so far that only with difficulty could he hope to regain the camp. He was eight hundred feet from the top. Numb with cold and weariness he turned back to rejoin Somervell, and through the gathering darkness the two exhausted men struggled down to Camp IV, where Mallory and others were waiting for them. Darkness fell, and they had to find their way by the aid of an electric torch.



MALLORY AND NORTON CLIMBING ON MOUNT EVEREST

Climbing at high altitudes is so tremendous a strain that lifting one's foot seems a great undertaking, and there must be long pauses between the steps.

So dangerous was the last part of the descent, that a rule had been made that those returning should wait till fresh men came up from Camp IV to help them down. Norton tells of how 'parched and famished with thirst' he at last heard a shout in answer to his 'feeble wail,' and three-quarters of an hour later he and Somervell reached the camp, with its tents and stores and hot drinks. But their troubles were not yet over. To reach real safety they must

descend to the Base Camp, down the long, steep slopes of ice and snow. During the night Norton's eyes became painful, and next morning he found that he was suffering from an attack of snow-blindness, so severe that for sixty hours he could see nothing. An Englishman and two porters helped him down, roped together: 'my every foot-step was guided and my feet placed for me the whole way down,' says Norton, telling of his descent of that desperate slope.

The last attempt to gain the summit was made by Mallory and A. C. Irvine. Again stores were carried up to Camp VI, where the two mountaineers were to sleep before making their effort. Another climber, N. E. Odell, followed them, climbing to Camp VI on the day they left it, with extra food to leave for the two adventurers. As he climbed towards Camp VI thick clouds veiled the summit and the ridge that led to it. Suddenly, for a moment, the clouds parted, and in the rift he saw two tiny figures, high on the ridge, climbing towards the summit. Then the clouds came down and hid them and they were seen no more. They were, thought Odell, late: they should by then have been on their return journey; but it might still be possible for them to gain the summit and return in safety. He reached Camp VI and left his stores, then went along the ridge to meet them. But it was growing dark, and he must find his way back to Camp IV, for there was no room for him in Camp VI. Early next morning he started again to climb back to Camp VI, where he hoped to find the two climbers rejoicing in their success—there was no one there. Then Odell knew that Mallory and Irvine would never come back. Perhaps they had slipped on the cliffs and gone to their death below; perhaps they had been

benighted and had died of cold—he could not tell. Nor could he tell where on that mysterious mountain lay the bodies of his friends.

Once again he went along the ridge as far as he dared, hoping against hope that he might yet find them, though he knew well that nothing could have lived out the night shelterless on the mountain. Once again he turned back to Base Camp, to tell his companions of their loss. ‘Has Everest been climbed?’ they wondered. Probably, they thought, for Mallory and Irvine were going ‘strongly’ towards the summit when last they were seen.

At the foot of the mountain they built a cairn conspicuous on the highest stony hillock over the Camp, and on it they carved the names of those who had died, and the inscription ‘IN MEMORY OF THREE EVEREST EXPEDITIONS;’ but better than any monument are the words said of Irvine by one of his comrades, ‘It was worth dying on the mountain to leave a reputation like that.’

§ 4. *THE EXPEDITION OF 1933*

IN February 1933 a fourth expedition set out. The leader was Hugh Ruttledge, and the best known of the climbers was F. S. Smythe, who had already conquered Kamet—one of the highest of the Himalayan peaks.

Once again a camp was set up on the Rongbuk Glacier, once again climbers toiled up the slopes of that north-east ridge that seemed to offer a possible road to the summit—once again cold and exhaustion drove them back. Everest has been conquered by no living man, but high on the world’s loftiest ridge, close to the summit that they themselves could not reach, Smythe’s companions found Mallory’s ice-axe.

§ 5. *THE FLIGHT OVER EVEREST*

WHILE Smythe and his party were preparing for their last attempt to climb Everest, plans were being made for the 'conquest' of the mountain from the air. Just as the land expedition had to pass through Tibet, so the air expedition had to pass over Nepal, and here, too, was a country closed to Europeans. Though the Maharajah was a progressive and broad-minded ruler, many of his nobles did not wish to allow aeroplanes to pass over their country, and it was only after waiting anxiously for many weeks that the expedition received a letter granting them the necessary permission.

A great deal of money was required so that aeroplanes could be built and equipped, and once again it seemed as if the expedition might have to be given up, when Lady Houston, a wealthy Englishwoman, offered to help.

After much thought it was decided to build two Westland aeroplanes, as these had specially wide wings and could rise very high, and to fit them with Pegasus engines, which would be powerful enough to carry them to over 30,000 feet. Every detail of these engines had to be perfect, for nothing could be left to chance: if the engine were to fail the aeroplane would crash among the glaciers and rocks of the Himalayas, and no parachute could save a man's life there as it could over pasture or cultivated ground.

There were other difficulties to be overcome. At a height of over 20,000 feet breathing is difficult, as the climbers had found, and the flyers could not rise gradually for days, and so become accustomed to the height. They must be prepared to go rapidly over 30,000 feet up, and yet be able

to breathe and see and think. To do this they had to be supplied with oxygen in great steel tubes.

The flyers had also to be prepared for a tremendous and sudden change of temperature. They would start their flight on the sweltering plains of India—and forty-five minutes later the temperature might be 60 degrees below zero, as cold as mid-winter at the South Pole. The only way of overcoming this terrible cold was to heat everything by electricity: instruments, cameras, clothes. They had each to wear a suit made in one piece, fastened all the way down the front by a lightning or 'zip' fastener. Under this was worn an inner suit, quilted, with a stuffing criss-crossed by electric wires, for heating. On their feet they wore rubber-soled flying boots lined with sheepskin, and on their hands they had electrically heated gauntlets. Even their eyes had to be protected by electrically heated goggles. Their suits were attached to the aeroplane by a wire along which flowed the electric current. On their faces they wore oxygen masks attached by long thin pipes to the great steel tubes, and fixed to these masks were small telephones through which the observer in his cockpit, and the pilot in his, could speak to each other through the roar of the engine.

The members of the expedition were very carefully chosen. The Marquess of Clydesdale and Flight-Lieutenant McIntyre were the first and second pilots, and the chief observer was Colonel Blacker, who had already had a great deal to do with planning the adventure. The observer did not only 'observe'—he had to attend to heating and oxygen, and above all he had to take photographs, for that was the special object of the expedition. Cameras were made which would work in the terrific cold, and take photo-



FLYING OVER THE ROOF OF THE WORLD

One of the 'planes of the Houston Mount Everest expedition photographed through the struts of the other.

graphs from every possible angle, and a trap-door in the floor of the aeroplane could be opened so that photographs might be taken of what was directly below.

The training of the flyers and the testing of the aeroplanes took place in England. One day, when an aeroplane had risen to 29,000 feet above the ground, the observer, busy with his camera, began to feel that they were falling. The pilot's oxygen mask had slipped, and, deprived of air, he had sunk upon the floor, half-conscious. The observer could not reach him. At this moment the catch of the trap-door gave way, the door blew open, and the observer looked down 'some five miles to the surface of Kent.' Supporting himself on his hands over the hole, the observer tried to kick the trap-door shut, and with a tremendous effort he did so, just as the pilot revived

sufficiently to adjust his mask, and begin to control the plane.

After months of preparation the two aeroplanes were sent off to India by sea, while the flyers, in small aeroplanes, made their way by Baghdad and Karachi to their base. This was at Purnea, to the north of the Ganges, on a fertile and well-watered plain, close to the foot-hills of Nepal. Here the flyers had to wait for suitable weather, for on the strength of the wind depended the success or failure of the expedition. The flyers must carry with them from Purnea enough fuel and oxygen to last the whole way to Everest and back, for the flight would be across two hundred miles of forest, gorge, and mountain, where no landing was possible. If the wind should blow at more than forty miles an hour it would be almost impossible to carry out the flight, for if it helped them in one direction it would hinder them in the other, and they could not carry enough petrol to battle against a strong wind. Day after day the weather reports came in—day after day the wind blew at seventy miles an hour!

On Monday the 3rd of April 1933 the peaks of the Himalayas were clear, and the wind had dropped to less than sixty miles an hour. Their chance had come. At eight o'clock in the morning the two aeroplanes were ready. 'We lowered ourselves,' writes Colonel Blacker, 'into our machines, sweltering already in the heavy suits . . . the pilots opened the throttles, the huge engines roared, and with a cheer and a wave they were off on the great adventure.' In the first ten minutes the observer had over forty duties to carry out, controls to adjust, clocks and gauges to inspect. Then, for half an hour he sat looking out at the dust haze that lay over plain and foot-hills. As they

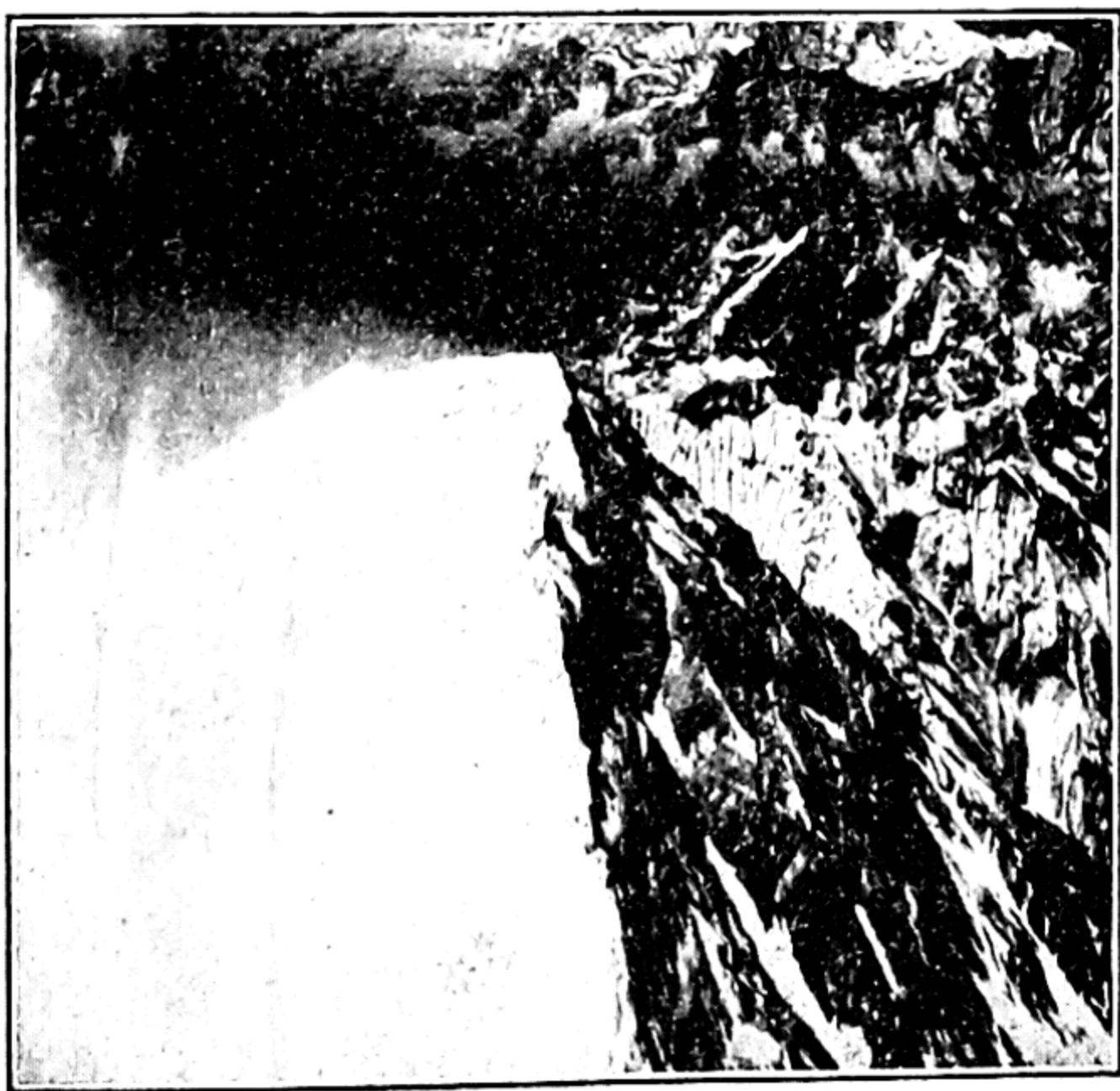
sped northwards the mountains of Nepal came into view, the black forests, and the valley of the turbulent Arun river.

At last they swung into the perfect clearness of the upper air, seeing before them the white snows of the Himalayas, 'Kangchenjunga in all its gleaming whiteness . . . the naked majesty of Everest itself. Just a tiny triangle of whiteness . . . and on its right, a hand's breadth, another tiny peak which was Makalu.' As they came nearer they could see the great ice-plume that blows from Everest; but the observer was not only looking at this amazing sight, he was busy with his controls and with his photographs. He bent down to open the trap-door—and as he did so he realized that, instead of rising above Everest, the plane was falling rapidly. A tremendous down-draught of air had caught them; and the instrument at which he was looking showed that they had dropped a thousand, two thousand feet in a few seconds. So close were they to the mountain that it seemed impossible they could clear it: they must crash down upon the ice and the cliffs. . . .

Then slowly the plane began to rise, and 'came to the . . . summit of Everest, crossing it, so it seemed to me, just a hair's breadth over its menacing summit.' Actually the instruments showed that they had cleared it by one hundred feet. They were over 30,000 feet above sea-level. Panting for breath the observer went on taking his photographs, while the pilot swung the aeroplane through the plume itself, and fragments of ice rattled against the wings. But they did not stay for long above the mountains; their supply of oxygen and of fuel was limited, and reluctantly they turned back. It was terribly cold; the observer's mask was, he says, 'a mass of ice.' They were one hundred and sixty miles from their base, but soon the snowy mountains

disappeared from view and they dropped through the purple dust haze. 'We landed,' writes Lord Clydesdale, 'full of happiness, with the realization that we had been where no man had been before.'

The world thrilled with the knowledge that men had looked down on Everest from the air. Cables of congratulation were sent from all parts to the triumphant flyers. But they were not content: the dust haze had spoiled many of their photographs; they had not achieved all that they had set out to do. Despite messages telling them to remain content with what they had done, they quietly set out again, once more ran the risks of wind, and cold, and lack of oxygen, and returned, at last satisfied, with the photographs they had determined to obtain.



THE TOP OF THE WORLD!

A photograph taken looking down upon the summit of Mount Everest.

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